



---

COMMONWEALTH AGRICULTURAL BUREAUX

---

# Plant breeding abstracts

---

# COMMONWEALTH BUREAU OF PLANT BREEDING AND GENETICS

Department of Applied Biology,  
Cambridge, CB2 3DX, U.K.

(Telephone: Cambridge (0223) 358381 Ext. 216)

<i>Director :</i>	Miss O. Holbek, B.Sc.
<i>Scientific Information Officers :</i>	Mrs. J. Cheney, B.Sc.
	B.F. Cooper, M.A., Ph.D.
	Miss S.J. Firman, B.Sc., M.Phil.
	M.B. Huss, M.A.
	Mrs. S. Jellis, M.A.
	Mrs. B.L. Kingston, B.Sc., Ph.D.
	J.E. Loder, M.Sc.
	F.E. Morgan, B.A.
	A.A. Sclater, B.Sc.
	Miss A.A. Taylor, B.Sc., M.Phil.
	G.J. Turner, B.Sc., Ph.D.

## *Consultant Director:*

Prof. Sir James Beament, Sc.D., F.R.S., Drapers' Professor of Agriculture

The Commonwealth Bureau of Plant Breeding and Genetics is one of 10 Bureaux and 4 Institutes which together form the Commonwealth Agricultural Bureaux, an organisation sponsored by Commonwealth governments for the dissemination of information on agricultural research.

Plant Breeding Abstracts is a monthly journal prepared by the Bureau and published by the Commonwealth Agricultural Bureaux.

## *Annual Subscription Rate*

To subscribers in countries that are not members of CAB £227.00

The journal is available at a special rate to subscribers in countries which make a financial contribution to CAB (these countries are listed on the inside back cover).

## *Back Numbers*

Back volumes of Plant Breeding Abstracts are available and there are discounts up to a maximum of 50% on orders of more than 10 volumes. Microform editions of back volumes are available at 80% of the price of paper editions.

Orders and enquiries concerning subscriptions and back numbers should be sent to

CENTRAL SALES,  
COMMONWEALTH AGRICULTURAL BUREAUX,  
FARNHAM ROYAL, SLOUGH SL2 3BN, UK.

[Note: Prices are subject to change without notice]

---

Photocopies of most abstracted papers can be supplied by the Bureau at 20p per page in UK, 25p per page elsewhere, inclusive of delivery by air; minimum charge £2.00 per paper. An application and copyright declaration form is printed inside this issue. This form (which may be copied) should be signed and returned to the Bureau.

---

© Commonwealth Agricultural Bureaux, 1982. All rights reserved. No part of this publication may be produced in any form or by any means, electronically, mechanically, by photocopying, recording or otherwise, without the prior permission of the copyright owner.

The Executive Council of the Commonwealth Agricultural Bureaux is a signatory to the Fair Copying Declaration, details of which can be obtained from The Royal Society, 6 Carlton House Terrace, London SW1.

The Commonwealth Agricultural Bureaux organisation does not accept responsibility for any trade advertisement included in this publication.



# PLANT BREEDING ABSTRACTS

Volume 51



*Prepared by*

**Commonwealth Bureau of  
Plant Breeding and Genetics, Cambridge**

**1981**

ISSN 0032-0803

© *Commonwealth Agricultural Bureaux* 1982

All rights reserved. No part of this publication may be reproduced in any form or by any means, electronically, mechanically, by photocopying, recording or otherwise, without the prior permission of the copyright owner.

The Executive Council of the Commonwealth Agricultural Bureaux is a signatory to the Fair Copying Declaration, details of which can be obtained from The Royal Society, 6 Carlton House Terrace, London, S.W.1.

*published by*

Commonwealth Agricultural Bureaux,  
Farnham House, Farnham Royal,  
SLOUGH SL2 3BN, UK.

*printed by*

Unwin Brothers Ltd., The Gresham Press, Old Woking, Surrey, UK.



AND GENERAL

## Contents

993  
1039



# COMMONWEALTH BUREAU OF PLANT BREEDING AND GENETICS

Department of Applied Biology,  
Cambridge, CB2 3DX, U.K.

(Telephone: Cambridge (0223) 358381 Ext. 216)

*Director:*  
*Scientific Information Officers:*

Miss O. Holbek, B.Sc.  
Mrs. J. Cheney, B.Sc.  
B.F. Cooper, M.A., Ph.D.  
Miss S.J. Firman, B.Sc., M.Phil.  
M.B. Huss, M.A.  
Mrs. S. Jellis, M.A.  
Mrs. B.L. Kingston, B.Sc., Ph.D.  
J.E. Loder, M.Sc.  
F.E. Morgan, B.A.  
A.A. Sclater, B.Sc.  
Miss A.A. Taylor, B.Sc., M.Phil.  
G.J. Turner, B.Sc., Ph.D.

*Consultant Director:*

Prof. Sir. James Beament, Sc.D., F.R.S., Drapers' Professor of Agriculture

The Commonwealth Bureau of Plant Breeding and Genetics is one of 10 Bureaux and 4 Institutes which together form the Commonwealth Agricultural Bureaux, an organisation sponsored by Commonwealth governments for the dissemination of information on agricultural research.

Plant Breeding Abstracts is a monthly journal prepared by the Bureau and published by the Commonwealth Agricultural Bureaux.

## *Annual Subscription Rate*

To subscribers in countries that are not members of CAB      £227.00

The journal is available at a special rate to subscribers in countries which make a financial contribution to CAB (these are listed on the inside back cover).

## *Back Numbers*

Back volumes of Plant Breeding Abstracts are available and there are discounts up to a maximum of 50% on orders of more than 10 volumes. Microform editions of back volumes are available at 80% of price of paper editions.

Orders and enquiries concerning subscriptions and back numbers should be sent to:

CENTRAL SALES,  
COMMONWEALTH AGRICULTURAL BUREAUX,  
FARNHAM ROYAL, SLOUGH SL2 3BN, UK.

[Note: Prices are subject to change without notice]



# COMMONWEALTH AGRICULTURAL BUREAUX

The Commonwealth Agricultural Bureaux (CAB) is a co-operative venture established by Commonwealth Governments to provide information and other specialized services for scientists and professional workers in agriculture and related fields. The organization is controlled by an Executive Council composed of nominees of the various Commonwealth Governments, including one for the Dependent Territories. The following pages list the present members of the Executive Council, and Liaison Officers who form the primary link in the member country.

CAB has three main functions: a world agricultural information service, an identification service for entomology, mycology and helminthology, and a biocontrol service. CAB's information service is based on 46 abstract journals which, taken together, cover the whole range of agricultural science. Contemporary world literature in many languages is scanned for items worthy of noting by abstract or titles in the journals. Since 1973 all references have been made available in machine-readable form for batch searching and online retrieval. The database contains approximately 1,100,000 records and is increasing by 12,000 per month. Other publications include technical periodicals, annotated bibliographies, review articles and books. An information retrieval service ensures that individual needs are met, and also supplies photocopies of source papers.

The work of CAB is largely carried out through a number of Institutes and Bureaux, each dealing with a particular aspect of agricultural science. Enquiries on scientific aspects of CAB work should be sent to the Director of the appropriate Bureau. Other enquiries should be sent to the Executive Director, CAB, at the address below, or to Liaison Officers in member countries.

## *Headquarters*

Farnham House, Farnham Royal, Slough SL2 3BN, UK  
Tel: Farnham Common (02814) 2281  
Telex: 847964  
Cables: COMAG, SLOUGH

*Executive Director:* N.G. Jones, DFC, BSc  
*Editorial Director:* J.R. Metcalfe, MA, PhD  
*Scientific Adviser:* E.K. Woodford, OBE, MSc, PhD  
*Scientific Assistant:* D.L. Hawksworth, PhD, DSc, FLS

## *Institutes*

*Commonwealth Institute of Entomology*, 56 Queen's Gate, London SW7 5JR, Tel: 01-584-0067/8  
*Director:* N.C. Pant, MScAgr, DIC, PhD, FNA, FIBiol.  
*Commonwealth Mycological Institute*, Ferry Lane, Kew, Richmond TW9 3AF. Tel: 01-940-4086/7  
*Director:* A. Johnston, BSc, AICTA, FIBiol.  
*Commonwealth Institute of Biological Control*, Gordon Street, Curepe, Trinidad, West Indies. Tel: St. Augustine (662) 4173  
*Director:* F.D. Bennett, BSA, PhD.  
*Commonwealth Institute of Parasitology*, 395A Hatfield Road, St. Albans, AL4 0XU, Herts., Tel: St. Albans (0727) 33151  
*Director:* R.L.J. Muller, BSc., PhD.

## *Bureaux*

*Agricultural Economics*, Dartington House, Little Clarendon Street, Oxford OX1 2HH. Tel: Oxford (0865) 59829.  
*Director:* P.G. Stonham, PhD.  
*Animal Breeding and Genetics*, Animal Breeding Research Organization, The King's Buildings, West Mains Road, Edinburgh EH9 3JX. Tel: Edinburgh (031) 667-6901.  
*Director:* J.D. Turton, BSc, MRCVS, DTVM.  
*Animal Health*, Central Veterinary Laboratory, New Haw, Weybridge, KT15 3NB, Surrey. Tel: Byfleet (9973) 42826  
*Director:* R.M. Mack, FRCVS.  
*Dairy Science & Technology*, Lane End House, Shinfield, Reading RG2 9BB. Tel: Reading (0734) 883895  
*Director:* E.J. Mann, NDD, CDD.  
*Forestry*, Commonwealth Forestry Institute, South Parks Road, Oxford OX1 3RD. Tel: Oxford (0865) 57185  
*Director:* W. Finlayson, BSc.  
*Horticulture & Plantation Crops*, East Malling Research Station, Maidstone ME19 6BJ, Kent. Tel: West Malling (0732) 843833  
*Director:* D.J. O'D. Bourke, MA, DipAgr, FLS.  
*Nutrition*, Rowett Research Institute, Bucksburn, Aberdeen AB2 9SB. Tel: Bucksburn (0224) 712162  
*Director:* A.A. Woodham, BSc, PhD, CChem, FRCI.  
*Pastures & Field Crops*, Grassland Research Institute, Hurley, Maidenhead SL6 5LR. Tel: Littlewick Green (062 882) 3457  
*Director:* P.J. Boyle, MA.  
*Plant Breeding & Genetics*, Department of Applied Biology, Pembroke Street, Cambridge CB2 3DX. Tel: Cambridge (0223) 358381 (Ext. 216)  
*Director:* Miss O. Holbek, BSc.  
*Soils*, Rothamsted Experimental Station, Harpenden AL5 2JQ, Herts. Tel: Harpenden (05827) 63133 (Ext. 271)  
*Director:* B. Butters, MSc, DipAgr, DTA, DIC, ARCS.



# EXECUTIVE COUNCIL

(as at 1 September 1981)

Member						Representing
Dr. M. DHAR (Chairman)	...	...	...	...	...	India
Dr. B. HEALY (Vice-Chairman)	...	...	...	...	...	New Zealand
G.M.P. MYERS	...	...	...	...	...	United Kingdom
Dr. L.W. MORLEY	...	...	...	...	...	Canada
Dr. A.E. PIERCE, CBE	...	...	...	...	...	Australia
E.G. DAYANANDA	...	...	...	...	...	Sri Lanka
Y.N. OHENE-AKRASI	...	...	...	...	...	Ghana
THE SECOND SECRETARY	...	...	...	...	...	Malaysia
THE FIRST SECRETARY	...	...	...	...	...	Nigeria
A. ANTONIADES	...	...	...	...	...	Cyprus
H.E. THE HIGH COMMISSIONER	...	...	...	...	...	Sierra Leone
Mrs. L.E. HOWELL	...	...	...	...	...	Tanzania
Miss H. GOULBOURNE	...	...	...	...	...	Jamaica
THE FIRST SECRETARY	...	...	...	...	...	Trinidad & Tobago
A.L. MUKASA-ZIRIMENYA	...	...	...	...	...	Uganda
E.N. BIRICHI	...	...	...	...	...	Kenya
H.E. THE HIGH COMMISSIONER	...	...	...	...	...	Malawi
THE TRADE COMMISSIONER	...	...	...	...	...	Zambia
Mrs. AMIE DIABBA-BOJANG	...	...	...	...	...	The Gambia
C. BARKER	...	...	...	...	...	Guyana
H.E. THE HIGH COMMISSIONER	...	...	...	...	...	Botswana
T. NARRAINEN	...	...	...	...	...	Mauritius
S. KANGWAI	...	...	...	...	...	Fiji
S.A.L.M. MUSTAKIM	...	...	...	...	...	Bangladesh
H.E. THE HIGH COMMISSIONER	...	...	...	...	...	The Bahamas
P. TAMEI	...	...	...	...	...	Papua New Guinea
(to be appointed)	...	...	...	...	...	Zimbabwe
D.G. OSBORNE	...	...	...	...	...	Dependent Territories

Dr. D.A. ALI, Secretary, Commonwealth Science Council (Observer)

N.G. JONES, DFC, BSc (Executive Director)

## LIAISON OFFICERS

(as at 1 September 1981)

Contributing country	Liaison Officer	Address
United Kingdom	Under Secretary	Agricultural Research Council, 160 Great Portland Street, London W1N 6DT.
Canada	Mr. R.M. Prentice	Program Coordinator, Crop Protection Research Branch, Agriculture Canada, Ottawa, Ontario, Canada, K1A 0C5.
Australia	J.B. Allen, BSc, PhD	Commonwealth Scientific and Industrial Research Organization, PO Box 225, Dickson, ACT 2602.
New Zealand	G.W. Butler, MSc, Fildr, FRSNZ	Assistant Director-General, Department of Scientific and Industrial Research, Private Bag, Wellington.



India	O.P. Gautam, PhD	Director-General, Indian Council of Agricultural Research, Krishi Bhavan, New Delhi 110001.
Sri Lanka	G.W.E. Fernando, BSc, MSc, PhD.	Senior Deputy Director of Agriculture (Research), Department of Agriculture, Peradeniya.
Ghana	Executive Chairman	Council for Scientific and Industrial Research, PO Box M.32, Accra.
Malaysia	Permanent Secretary	Ministry of Agriculture & Cooperatives, Swettenham Road, Kuala Lumpur.
Nigeria	The Director	Agricultural Sciences Research Depart- ment, Moor Plantation, Private Mail Bag No. 5382, Ibadan.
Cyprus	A. Papasolomontos, PhD	Director-General, Ministry of Agriculture and Natural Resources, Nicosia.
Sierra Leone	Senior Lecturer	Njala University College, University of Sierra Leone, PMB, Freetown.
Tanzania	Director of Agriculture	Ministry of Agriculture, PO Box 9071, Dar-es-Salaam.
Jamaica	Karl E. Wellington, PhD	Research & Development Department, Ministry of Agriculture, PO Box 480, Kingston 6.
Trinidad & Tobago	Chief Technical Officer (Crop Research)	Ministry of Agriculture, Central Experiment Station, Centeno, via Arima Post Office, Trinidad.
Uganda	Permanent Secretary	Ministry of Agriculture & Forestry, PO Box 102, Entebbe.
Kenya	Director of Agriculture	Ministry of Agriculture, PO Box 30028, Nairobi.
Malawi	Chief Agricultural Research Officer	Ministry of Agriculture and Natural Resources, PO Box 30134, Capital City, Lilongwe 3.
Zambia	Permanent Secretary	Ministry of Rural Development, PO Box RW.197, Lusaka.
The Gambia	Permanent Secretary	Ministry of Agriculture and Natural Resources, The Quadrangle, Banjul.
Guyana	Deputy Chief Agricultural Officer (Research)	Ministry of Agriculture, PO Box 1001, Georgetown.
Botswana	Permanent Secretary	Ministry of Agriculture, Common Service Division, Private Bag 0028, Gaborone.
Mauritius	B.D. Roy	Chief Agricultural Officer, Agricultural Services, Reduit.
Fiji	Permanent Secretary	Ministry of Agriculture, Fisheries and Forests, Rodwell Road, Suva.
Bangladesh	K.M. Badruddoza, MAg, PhD, DipGenPtBr.	Director, Bangladesh Agricultural Research In- stitute Farm Gate (Sher-e-Bangla Nagar) New Air Port Road, Dacca-7.
The Bahamas	Director of Agriculture	Ministry of Agriculture, Fisheries & Local Government, PO Box 3028, Nassau.
Papua New Guinea	Mr. N.J. Natera, The Secretary	The Department of Primary Industry, PO Box 2417, Konedobu.
Zimbabwe	G.W. Herd	Head, Plant Protection Research In- stitute, Ministry of Agriculture, PO Box 8100, Causeway, Salisbury.
Solomon Islands	B.J.F. Russell	Permanent Secretary, Ministry of Agriculture and Lands, Solomon Islands Government, PO Box G11, Honiara, Solomon Islands.



# ERRATA

(lines are counted from the beginning of the bibliographic data in each item.)

## Volume 50

Page	Abstract	Line	
600	6999	6	for 'mytomycin' read 'mitomycin'
628	7333	8	for 'diethylpyrocarbonate' read 'diethylpyrocarbamate'
784	9160	1	for 'SOTOMYOR-RİOS' read 'SOTOMAYOR-RİOS'
823	9627	2	for ' <i>T. sylvestris</i> ' read ' <i>P. sylvestris</i> '

## Volume 51

45	388	1	for 'INTERNATIONAL' read 'PHILIPPINES, INTERNATIONAL'
87	894	8	for 'F <sub>1</sub> plants' read 'F <sub>1</sub> tomato plants'
115	1176	7	for ' <i>holci</i> and' read ' <i>holci</i> [ <i>Ps. syringae</i> ] and'
115	1177	8	for ' <i>panici-miliacei</i> and' read ' <i>panici-miliacei</i> [ <i>S. destruens</i> ] and'
115	1178	6	for ' <i>panici-miliacei</i> ,' read ' <i>panici-miliacei</i> [ <i>S. destruens</i> ],'
115	1179	7	for ' <i>panici-miliacei</i> ,' read ' <i>panici-miliacei</i> [ <i>S. destruens</i> ].'
115	1180	9	for ' <i>panici-miliacei</i> showed' read ' <i>panici-miliacei</i> [ <i>S. destruens</i> ] showed'
117	1201	6	for ' <i>P.</i> ' read ' <i>Pyricularia</i> '
117	1202	4	for ' <i>Leptosphaeria salvinii</i> ' read ' <i>Leptosphaeria</i> [ <i>Magnaporthe salvinii</i> ]
117	1203	6	delete ' <i>[Leptosphaeria]</i> '
134	1398	8	for 'irradiation self-incompatible' read 'irradiation, self-incompatible'
135	1403	16	for ' <i>concentricum</i> ,' read ' <i>concentricum</i> [ <i>Pyrenopeziza brassicae</i> ].'
143	1502	13	for ' <i>Dothichiza populea</i> ' read ' <i>Dothichiza</i> [ <i>Cryptodiaporthe</i> ] <i>populea</i> '
147	1552	1	for ' <i>[Vses. shkola molod.</i> ' read ' <i>[Breeding tomatoes for</i> '
159	1687	8	for ' <i>sacchari</i> of' read ' <i>sacchari</i> [ <i>Drechslera sacchari</i> ] of'
159	1690	14	for ' <i>maydis</i> and' read ' <i>maydis</i> [ <i>Cochliobolus heterostrophus</i> ] and'
159	1690	14	for ' <i>carbonum</i> , sugar' read ' <i>carbonum</i> [ <i>C. carbonum</i> ], sugar'
159	1690	15	for ' <i>sacchari</i> , oats' read ' <i>sacchari</i> [ <i>Drechslera sacchari</i> ], oats'
159	1690	15	for ' <i>victoriae</i> , and' read ' <i>victoriae</i> [ <i>C. victoriae</i> ], and'
169	1799	6	for ' <i>T.</i> ' read ' <i>Triticum</i> '
183	1967	7	for 'Plantlets' read 'Maize plantlets'
183	1968	7	for 'Dekalb' read 'DeKalb'
203	2208	15	for ' <i>viciaefolia</i> ' read ' <i>viciifolia</i> '
230	2539	10	for ' <i>v. vinifera</i> ' read ' <i>V. vinifera</i> '
230	2539	16	for 'are presented.' read 'have been obtained.'
239	2651	11	for ' <i>C. fulvum</i> and' read ' <i>C. fulvum</i> [ <i>Fulvia fulva</i> ] and'
240	2663	8	for ' <i>Helminthosporium carbonum</i> ' read ' <i>Helminthosporium</i> [ <i>Cochliobolus</i> ] <i>carbonum</i> '
247	2751	7	for ' <i>songaricum</i> ' read ' <i>soongaricum</i> '
355	4019	13	for ' <i>Trichometasphaeria turcica</i> ,' read ' <i>Trichometasphaeria</i> [ <i>Setosphaeria</i> ] <i>turcica</i> ,'
356	4034	8	for ' <i>[Trichometasphaeria turcica]</i> ' read ' <i>[Setosphaeria turcica]</i> '
387	4403	8	for 'information noticed' read 'information on sugar cane noticed'
468	5344	20	for 'chlorophyll polypeptides' read 'chlorophyll polypeptide complexes'
612	6986	6	for ' <i>Phytophaga destructor</i> ' read ' <i>Phytophaga</i> [ <i>Mayetiola</i> ] <i>destructor</i> '
627	7157	7	for ' <i>lunata</i> and' read ' <i>lunata</i> [ <i>Cochliobolus lunatus</i> ] and'
642	7326	6	for '20 varieties' read '20 potato varieties'
642	7335	8	for 'four varieties' read 'four potato varieties'
921	10395	5	for ' <i>T. hexaploide</i> ' read 'Hexaploid triticales'
941	10615	16	for ' <i>oryzae</i> ,' read ' <i>oryzae</i> [ <i>Cochliobolus miyabeanus</i> ].'



# AUTHOR INDEX

- Aaberg, D. A. 2983  
 Aalders, L. E. 753, 8428  
 Aase, K. 1250  
 Aastrup, S. 3121  
 Abaimov, A. P. 2583, 5541  
 Abar'yants, G. G. 2543  
 Abawi, G. S. 4624, 4694, 11079  
 Abbott, J. A. 4515  
 Abbott, R. J. 9762  
 Abd-el-Aziz H. Mohamed 4677, 5641  
 Abd-el-Aziz Hassan Mohamed 2209, 2292, 2293, 2464, 2552, 2686, 4677, 5641  
 Abd-el-Bary, A. A. 3061  
 Abd-el-Gadir, A. M. 337  
 Abd-el-Hafez, A. A. 5608  
 Abd-el-Hafez, A.-A. G. I. 7114  
 Abd-ul-Kefi, A. 5218, 5219  
 Abd-ul-Rahim, H. M. 8059  
 Abd-el-Rahman, A. Y. 8606  
 Abd-el-Raouf, M. S. 1822, 4041  
 Abd-ul-Hanan 6286  
 Abd-ul-Khalik 6887, 8993  
 Abd-ul-Latif Shaikh 7389  
 Abd-ul-Majid Malukera 6606, 6610  
 Abd-ul-Majid Zafar 6635, 6637, 6648, 6649, 6704, 7683  
 Abd-ul-Rashid Gill 6606, 6610  
 Abd-ul-Rauf 5829  
 Abdalla, M. M. F. 6681  
 Abdallah, M. M. 8726, 8802  
 Abdel-Aziz H. Mohamed 4677, 5641  
 Abdel-Aziz Hassan Mohamed 2209, 2292, 2552, 2686  
 Abdel-Gadir, A. M. 337  
 Abdel-Hafez, A.-A. G. I. 7114  
 Abdel-Rahman, A. Y. 8606  
 Abdel-Raouf, M. S. 1822, 4041  
 Abdelaziz Hassan Mohamed 2464  
 Abdelkefi, A. 5218, 5219  
 Abdrakhmanova, G. O. 7908  
 Abdul H. Wahab 2716  
 Abdul Hanan 6286  
 Abdul Khalik 6887, 8993  
 Abdul Latif Shaikh 7389  
 Abdul Majid Malukera 6606, 6610  
 Abdul Majid Zafar 6635, 6637, 6648, 6649, 6704, 7683  
 Abdul Rashid Gill 6606, 6610  
 Abdul Rauf 5829  
 Abdulla, O. A. 9614  
 Abdullaev, A. A. 532, 536  
 Abdullaev, I. K. 2544, 7569, 8430  
 Abdullah, A. 9850  
 Abdullah, H. 4766  
 Abdullah, I. B. 5168  
 Abdullah M. Nassib 4664, 4668, 4674  
 Abdullajev, I. K. 7569  
 Abdurakhmanov, S. G. 1450  
 Abe, J. 6212, 6213, 8226, 8940, 9725  
 Abeda Khatun 3755  
 Abel, W. E. 9800  
 Abernathy, J. R. 9821  
 Abeywickrama, M. 8170  
 Abhaya Prasad Das 2070  
 Abidov, R. 9814  
 Abney, T. S. 3747, 3749  
 Abo-el-Fadhl, M. A. 255  
 Abo-el-Zahab, A. A. 3727, 5293, 5294  
 Abo-Elfadhl, M. A. 255  
 Abo-Hegazi, A. M. T. 3732, 7792  
 Abou-el-Fadl, I. A. 3485  
 Abou Hagaza, N. S. 1822  
 Abou Hussein, M. R. 879, 880  
 Abraham, A. 5330  
 Abraham, A. T. 2709  
 Abraham, S. 5741  
 Abraham, Z. 3382, 4497  
 Abramov, A. G. 166, 5892, 6918  
 Abramov, G. A. 5490  
 Abramov, V. I. 3804  
 Abramov, Yu. Sh. 2543  
 Abramova, G. I. 4429  
 Abramova, I. V. 6507  
 Abramova, L. Z. 2543  
 Abramyan, L. Kh. 697  
 Abrantes Rodríguez, I. 9021  
 Ábrányi, A. 5883  
 Abreu Ferrer, S. 10443  
 Abro, H. K. 1346  
 Abu-el-Hassan Salih Ibrahim 10643  
 Abu Mohammad 9080  
 Abu-Shady, M. R. 4892  
 Abubekrov, B. A. 3266, 3271, 5214, 10661  
 Abuelhassan Salih Ibrahim 10643  
 Abugaliyev, S. G. 1012  
 Abukhovich, E. M. 8867  
 Abzalov, A. A. 538  
 Abzalov, M. F. 3338  
 Accatino, P. 7325  
 Achahboun, M. 8537  
 Acharya, S. N. 1900, 2055, 2056, 5038, 7109  
 Achuta Rao, K. 9066  
 Açıkgöz, E. 6218  
 Açıkgöz, N. 4187, 4216  
 Acosta, P. P. 4396  
 Adachi, T. 6741, 8926  
 Adamović, D. 2972, 3971  
 Adamovský, F. 2958  
 Adams, M. W. 59  
 Adams, R. E. 2500  
 Adams, W. T. 5532, 6585, 10036  
 Adamson, W. C. 2206  
 Adansi, M. A. 6853  
 Adara, O. A. 7020  
 Adary, A. H. 7888  
 Adashchik, A. G. 3540  
 Aday, B. A. 4067  
 Addy, S. K. 8916  
 Adegoke, A. O. 8783  
 Adeishvili, N. I. 721, 9406  
 Adelana, B. O. 8552  
 Aderungboye, F. O. 2432  
 Adesuyi, S. A. 5016  
 Adilova, K. O. 273  
 Adjei, G. B. 5907  
 Adolf, K. 1913, 4935, 8005  
 Adora, R. K. 8638  
 Adzhiev, A. M. 771, 8449  
 Aepli, A. 7543  
 Afanasenko, O. S. 7111  
 Afanas'eva, L. V. 5538  
 Afonin, M. I. 5311  
 Afre Montesinos, O. 868  
 Afry, M. M. F. El 7406  
 Afsar Awan, M. 5124  
 Afusoia, I. 8816  
 Afzal, M. 1892, 6438, 8004  
 Agadzanyan, A. M. 1557, 3712, 4649  
 Agafonov, A. F. 5557, 10155  
 Agafonov, A. V. 4027, 10647  
 Agafonov, N. P. 9626  
 Agafonov, N. S. 5798  
 Agafonova, O. V. 466, 6270  
 Agalodia, A. V. 5067  
 Agarkova, S. N. 981, 2741, 7845, 10169, 10174, 11103  
 Agarwal, G. P. 6664  
 Agarwal, K. 2785, 7045  
 Agarwal, K. N. 10423  
 Agarwal, V. K. 956  
 Agbede, T. 6740  
 Agbo, F. M. O. 949  
 Aggarwal, P. K. 1753  
 Aghadjanian, A. M. 1557, 4649  
 Aghajanyan, A. M. 1557, 3712, 4649  
 Agrawal, P. S. 2753  
 Agrawal, R. K. 10164, 10287  
 Agrawat, J. M. 7495  
 Aguado, P. 9343, 10201  
 Agudelo, F. V. de 8421  
 Aguiar, P. A. A. 7152, 7153  
 Ahad, A. A. 6948  
 Ahia, N. D. 5039  
 Ahl, P. 614, 4444  
 Ahlawat, R. P. S. 3985  
 Ahlawat, S. P. S. 3985  
 Ahluwalia, M. 4129, 4157, 9639  
 Ahmad Ali 8992  
 Ahmad Dalloul 10356  
 Ahmad, I. 6214  
 Ahmad Ikram 6807  
 Ahmad, M. S. 3159, 3162, 8190, 10602  
 Ahmad, Q. 9080  
 Ahmad, Q. N. 4732  
 Ahmad, R. 8704  
 Ahmad, S. 11185  
 Ahmad, Z. 8779, 10320  
 Ahmed, A. K. 5385  
 Ahmed, A. M. 5642  
 Ahmed, F. A. 9614  
 Ahmed, S. U. 4462, 9057, 9880  
 Ahmed, Z. U. 8622  
 Ahn, J. K. 5275, 8915  
 Ahn, K. Y. 1508  
 Ahn, S. B. 364  
 Ahn, S. W. 4220  
 Ahn, W. S. 2853, 2900  
 Ahokas, H. 306, 5037, 8114, 9985, 10912  
 Ahrens, W. 9030, 9845, 9846  
 Ahuja, K. L. 8374  
 Ahuja, M. R. 3985  
 Ahuja, S. L. 11118  
 Ahuja, S. S. 9442  
 Ahuja, U. 4660  
 Ahuja, V. P. 10423  
 Aiache, J. M. 993  
 Aidarbekov, Sh. 3352  
 Aidiyev, A. Ya. 8737  
 Airapetova, S. A. 4652, 5631, 7710  
 Airinei, A. 9882  
 Aitken, Y. 4993, 5701, 5880  
 Aivazyanyan, G. P. 768  
 Ajaujo, M. de T. 11063  
 Ajit Singh Saroha 1062  
 Akasi, T. 7651  
 Akbar A. Rajput 6889  
 Akehurst, B. C. 10194  
 Åkerberg, E. 1667  
 Akeson, W. R. 4417, 8326, 10767  
 Akhanda, A. M. 8369, 11149  
 Akhanda, M. A. M. 2729  
 Akhare, M. D. 3474  
 Akhmed-zade, F. A. 4770  
 Akhmedov, D. Kh. 5286  
 Akhmedov, F. M. 5489, 10929  
 Akhmedova, Sh. A. 2772  
 Akhmedova, Sh. M. 8449, 10934  
 Akhmedzade, F. A. 2772  
 Akhtar, C. M. 7524  
 Akhtar, M. A. 4305  
 Akhtar, S. 799  
 Akhund-zade, I. M. 2465, 2814, 9954, 10444, 10849  
 Akhundov, M. A. 3655  
 Akhundova, E. M. 731  
 Akhundova, N. I. 248, 10444, 10849  
 Akihama, T. 3857, 7534  
 Akil, B. A. 10107  
 Akimov, Yu. A. 2767  
 Akingbala, J. O. 1189, 7151  
 Akingbohunge, A. E. 6740  
 Akita, S. 5784  
 Akkuzhin, D. A. 530, 3367  
 Akmuradov, B. 7393  
 Akobundu, I. O. 4420  
 Akopyan, G. A. 10004  
 Akparanta, S. E. 4363  
 Aksanova, V. A. 7940  
 Aksenovich, A. V. 6095  
 Al-Falluji, R. A. 8542  
 Al-Hadeedy, K. H. 3727  
 Al-Hasan, A. M. 5373  
 Ala, A. Ya. 4717, 4720, 4728  
 Alad'in, V. S. 6937, 6946  
 Alagna, C. 7615  
 Alakhadze, Ts. 4505  
 Alam, B. 9656  
 Alam, M. S. 2174  
 Alarcon, E. 10291  
 Alba, E. 6449, 7491  
 Albers, F. 4239  
 Alberte, R. S. 3429, 3430  
 Albertini, A. 6477, 8402, 9945  
 Albertsen, M. C. 9565  
 Albescu, I. 379  
 Albinet, E. 9528, 10134  
 Albrecht, B. 5940  
 Albrecht, R. 156, 157, 5888, 5889  
 Albregts, E. E. 4554, 5477  
 Albright, M. 4651  
 Albuquerque, F. C. 4700  
 Al'derov, A. A. 8741, 8742, 9466  
 Aldoshina, V. I. 6857  
 Aldrich, D. T. A. 8261  
 Aldwinckle, H. S. 678, 1430, 1432, 3522, 4517  
 Aleeva, L. D. 2496  
 Alekperova, O. R. 3579  
 Aleksandrova, N. D. 3334  
 Aleksandrova, V. K. 729  
 Aleksan'yan, A. K. 774  
 Alekseenko, B. I. 4720  
 Alekseenko, L. F. 8685  
 Alekseev, A. P. 9884  
 Alekseev, E. B. 5195, 5196  
 Alekseev, V. V. 3943  
 Alekseeva, E. N. 3051, 5915  
 Alekseeva, E. S. 404  
 Aleksic, D. 10843  
 Aleksic, Z. 10843  
 Alessandrini, A. 1816  
 Alexander, D. McE. 3586  
 Alexander, M. P. 10715  
 Alexander, W. L. 113  
 Alexandrescu, V. 1791, 6451  
 Alfimov, V. A. 4879  
 Alfonso, A. 9837  
 Ali A. Ibrahim 4664, 4668, 4674  
 Ali-Khan, S. T. 4748  
 Ali, M. 11130  
 Ali, M. A. 2507, 2715  
 Ali Mohammed Esmail Moustafa 3347  
 Ali, S. M. 9321, 10592  
 Ali-zade, A. V. 186  
 Ali-zade, M. A. 1066, 4377, 6552  
 Ali-zade Mirza 6863  
 Alias B. Ismail 5091  
 Alibegović-Grbić, S. 8269  
 Aliev, A. 9806  
 Aliev, D. F. 4049  
 Aliev, K. 8449  
 Aliev, M. A. 1485  
 Aliev, M. O. 2511, 3577, 3580  
 Aliev, N. A. 770  
 Aliev, R. T. 1066, 3910, 6863  
 Alike, J. E. 8382  
 Alikhanian, S. I. 10199  
 Alikhanyan, S. I. 10199  
 Alikhodzhaeva, S. S. 7392  
 Alimov, E. 7310  
 Alimov, F. M. 10313  
 Alkämper, J. 1701  
 Allah Rang 10182  
 Allan, R. E. 190, 3936, 7876, 7885  
 Allard, R. 5807  
 Allard, R. W. 2856, 4780, 7856  
 Allen, A. E. 10250  
 Allen, D. J. 11113



- Allen, E. J. 4349  
 Allen, H. T. 3992  
 Allen, J. G. 6274  
 Allen, R. J., Jr. 4124  
 Allendorf, F. W. 999, 10954  
 Allingham, E. A. 10367  
 Allison, L. D. 8243  
 Allison, M. L. 5448  
 Allison, N. J. 1545  
 Almaniayazov, A. A. 163  
 Almeida, A. A. de 9823  
 Almeida, A. M. R. 4739  
 Almeida Filho, J. de 6768  
 Almeida, L. A. 5673  
 Almodares, A. 7263, 8228  
 Alpat'ev, A. V. 4647  
 Alsam, M. 8639  
 Al'smik, P. I. 1303  
 Alston, F. H. 3504  
 Altaf Hussain 6606, 6610, 6635, 6637, 6648, 6891, 7683  
 Altaf Hussain Chaudhry 6440  
 Altinyay, S. 3440  
 Altmann, R. 5042  
 Alvey, D. D. 3027  
 Alwis, H. M. de 395  
 Aly, A. E. 3062  
 Amalendu Chatterjee 10739  
 Amalraj, S. F. A. 3351  
 Aman, P. 7106  
 Amano, E. 2833, 2834, 2835  
 Amaral, A. dos S. 8889  
 Amaral, R. E. de M. 7223  
 Amaya, A. 9497  
 Amaya-F., J. 7519  
 Amaya-Farfan, J. 7519  
 Amble, V. N. 4772  
 Ambrosov, A. L. 3335, 8987  
 Amby, R. P. 1984  
 Amel'chenko, V. P. 3488  
 Amin E. Aly 2131  
 Amini, I. 10574  
 Aminov, N. Kh. 1780  
 Amirbekyan, V. A. 138, 1785  
 Amirkhanov, Zh. 7310  
 Amirova, F. D. 3655  
 Amitava Saha 3381  
 Amling, H. J. 1494  
 Amling, K. A. 1494  
 Amma, S. 7478  
 Amorim Neto, S. 8896  
 Amoros, W. R. 7318  
 Ampe, G. 8518  
 Amrutavalli, S. A. 11199  
 Amsir Rifin 4036  
 An, C. K. 2931  
 An, C. P. 3907  
 An, H. H. 9151  
 An, H. P. 8814  
 An, Q. K. 2931  
 An, Z. P. 3907  
 Anahosur, K. H. 2100, 5086, 7166, 10585  
 Anaïs, G. 3657, 11044  
 Anand Kumar 986  
 Anand, N. 4697, 8548  
 Anand Parkash Tyagi 1344  
 Anand, S. C. 11129, 11135  
 Ananda Rao, P. K. 9887, 10821  
 Ananda, S. A. 2505  
 Ananian, A. A. 4652  
 Anantharaman, P. V. 9066  
 Ananyan, A. A. 4652  
 Anashchenko, A. V. 4475  
 Anastasova-Kr'steva, M. 8103, 10198  
 Anastasova-Kristeva, M. 8103, 10198  
 Anbu, S. 8516  
 Ancora, G. 2640, 8336, 11052  
 Andersen, A. J. 8863  
 Andersen, C. Y. 10546  
 Andersen, I. L. 4248  
 Andersen, K. 94  
 Andersen, R. L. 2526, 4532, 4553, 8404  
 Andersen, S. 94  
 Andersen, W. R. 360  
 Anderson, F. N. 5652  
 Anderson, G. J. 765  
 Anderson, G. W. 4000  
 Anderson, J. F. 8388  
 Anderson, K. A. 3612  
 Anderson, M. K. 3280, 4292, 7290  
 Anderson, N. A. 5211  
 Andersson, B. Å. 2654, 5622  
 Andersson, G. 5419  
 Ando, A. 4199, 10451  
 Ando, T. 1326  
 Andonov, I. 4077, 4078  
 Andonova, P. 10480  
 Andrä, A. 10084  
 Andrade, J. M. V. de 5835, 5836, 6072, 6907, 6991  
 Andrašćik, M. 2958  
 Andreasson, J. 3649  
 Andreev, L. N. 3974  
 Andreeva, L. V. 7225  
 Andreeva, N. M. 5799, 6093  
 Andrejić, M. 2966  
 Andres, M. W. 10555  
 Andrew, R. H. 3084, 4076  
 Andrews, C. P. 4530, 4534, 5433, 10019  
 Andrews, D. J. 5783, 6721, 6722  
 Andrews, G. R. 7587  
 Andriatomo, G. M. 10616  
 Andries, A. P. 1246, 7251  
 Andrusenko, V. V. 6191  
 Andrushchenko, A. P. 790  
 Andruszewska, A. 5314  
 Andryushchenko, V. K. 894, 895, 905, 2642, 4638, 4639, 4806, 6657  
 Aneeta Arora 6953  
 Anestiadi, K. S. 7802  
 Anfinogenov, G. V. 3023  
 Angelini, U. 10933  
 Angelov, D. 6636, 6645, 6646  
 Angelowa, L. 4998  
 Angulo, D. 10669  
 Angus, W. J. 4859, 10315  
 Anikeenko, A. P. 7522  
 Anikeenko, V. S. 7522  
 Anil Kumar 2456  
 Aniol, A. 1115  
 Anis Ahmad Qureshi 8997  
 Anisimova, G. L. 1304, 8976  
 Anisimova, I. N. 8776  
 Anjum, F. M. 5830  
 Anna, S. 7478  
 Annamma, Y. 3494  
 Annou, G. 448  
 Anokhina, G. V. 828  
 Anokhina, T. A. 406, 3204, 10622  
 Anokhina, V. S. 470, 7303, 7306  
 Antcliff, A. J. 2542, 3611, 5488  
 Anthenill, F. J. 8058  
 Anthony, F. 9048  
 Antimonov, K. A. 1174  
 Antipov, V. G. 2572  
 Antiya, I. Sh. 5653  
 Antohe, I. 2080, 10588  
 Antohi, I. 10588  
 Antokhi, I. 10588  
 Antonelli, M. 3517  
 Antonenko, N. G. 2557  
 Antoni, M. G. 4558  
 Antonov, Yu. P. 10998  
 Antonova, G. 10765  
 Antonova, T. S. 645, 3473  
 Antoshkina, A. I. 2524  
 Antoun, H. 4287  
 Anubhava Narain 3455, 3663  
 Anwar Ahmad Khan 6396  
 Anwar Mirza 7389  
 Anwar, S. Y. 1215  
 Anwar Tariq 8990  
 Anwarhan, H. 5094, 5101  
 Ao, H. C. 3960  
 Aoyagi, S. 7650  
 Apetroaie, M. 2036  
 Apltauerová, M. 1063  
 Apostol, C. J. 1466  
 Appa Rao, K. 610, 7471, 7472  
 Apparao, K. 610, 7471, 7472  
 Appelqvist, L.-Å. D. 6617  
 Appels, R. 8787, 10243  
 Applegate, H. W. 3644  
 Appleyard, D. B. 1744  
 Appleyard, M. 4093  
 April, J. E. 3257  
 Apykhtin, G. V. 2566  
 Arain, M. A. 6890  
 Arakel'yan, A. I. 123  
 Araki, H. 4839, 4840, 4841  
 Aramchock, C. 5108  
 Aramov, M. Kh. 11048  
 Aranzzeb, S. 5962  
 Arantes, N. E. 6752, 7760  
 Arapova, T. S. 10764  
 Araratyan, L. A. 20, 1009, 2781  
 Arasimovich, V. V. 2773  
 Aravind Kumar 5374  
 Arbogast, R. T. 5276  
 Arceneaux, G. 10747  
 Archer, M. J. 1810  
 Archetti, R. 1740  
 Arcia, M. A. 7468, 7469  
 Arcia-Montezuma, M. A. 7473, 8350  
 Arcioni, S. 5179, 7274  
 Aref'ev, Yu. F. 5538  
 Arenaz, P. 2031, 8097  
 Arendt, N. K. 729, 7568, 7601  
 Arene, O. B. 3413  
 Argandoña, V. H. 6987  
 Argentina, Estación Experimental Agro-Industrial "Obispo Colombes" 4713  
 Arias, C. 4424  
 Ariffin, B. 5696  
 Arinshtein, A. I. 10835  
 Aripdzhanov, Sh. A. 5282, 7381  
 Aristarkhova, M. L. 1567  
 Ariyanayagam, R. P. 6815, 11192  
 Arjun Singh 8779  
 Arkin, G. F. 259  
 Arlt, K. 6200  
 Armisheva, N. N. 9473  
 Armitage, C. R. 4898  
 Armolaite, I. 9213  
 Armstrong, D. J. 4684  
 Armstrong, G. 10590  
 Armstrong, G. M. 4388, 4701  
 Armstrong, J. E. 10031  
 Armstrong, J. K. 4388, 4701  
 Armstrong, J. M. 3873  
 Armstrong, K. C. 1400, 1768, 1769, 6280, 7906  
 Armstrong, K. W. 6080  
 Arnaud, F. 7499  
 Arndt, H. 5544  
 Arnold, C. E. 10019  
 Arnold, G. M. 4593  
 Arnold, M. H. 3842  
 Arntzen, C. 9568  
 Arntzen, C. J. 9569  
 Arora, A. 6953  
 Arora, N. D. 2289, 7756, 9816  
 Arora, O. P. 3489  
 Arora, R. K. 6854, 10123, 10838  
 Arora, S. K. 8281, 8754, 9277, 11193  
 Arora, Y. K. 876  
 Arrendale, R. F. 2380, 6419  
 Arroyo Aguilú, J. A. 73  
 Artamanova, E. S. 10864  
 Artamonov, V. D. 9432  
 Artamonova, E. S. 6490, 10864  
 Artemova, A. S. 182, 9444  
 Artemova, N. V. 8001, 8950  
 Arthamwar, D. N. 6355  
 Arulsekar, S. 9146  
 Arumugam, R. 2322, 2329, 11102  
 Aruna Reddy, T. 1215  
 Arunachala, A. S. 6812  
 Arunachalam, V. 4454, 8375  
 Arutyunova, L. G. 5297, 9804  
 Arzumanov, A. Sh. 9114  
 Asaga, K. 1236  
 Asana, R. D. 1749  
 Asawa, B. M. 1598, 1896, 4395, 6813, 6814, 10398, 10573  
 Asawa, R. K. 1896  
 Asay, K. H. 430, 2202, 6235, 7258, 7259  
 Asay, R. N. 8455  
 Ascher, K. R. S. 3372  
 Ascher, P. D. 8651  
 Asem M. Ali 2686, 4677  
 Asem M. M. Ali 5641  
 Asfandiyarova, M. Sh. 1332  
 Asfandiyarova, R. R. 5704, 6785  
 Asghar, A. 5830  
 Asghar Jalis 5825, 8998  
 Ashagari, D. 1868  
 Ashby, J. W. 4626  
 Ashizawa, M. 6605, 6618  
 Ashley, D. A. 10144, 11137  
 Ashley, R. A. 8278, 9790  
 Ashokan, P. K. 2450, 2462, 9032  
 Ashor, A. M. 3727  
 Ashraf Zahid, M. 5829  
 Ashri, A. 1651, 5392  
 Ashurbekov, Kh. 5298, 9812  
 Aslam, M. 7367, 7369  
 Aslam, R. M. 6113  
 Asnani, V. L. 3054  
 Asokan, P. K. 9032  
 Assefa, M. 9738  
 Asselin, A. 7725  
 Asselin de Beauville, M. 1221  
 Asthana, A. N. 9826  
 Asthana, D. C. 4213  
 Asthana, K. S. 9080  
 Astley, D. 2268, 7321, 8274  
 Atakuziev, S. 478  
 Atale, S. B. 1889  
 Atallah Baroudi 6317  
 Atanasiu, N. 4214  
 Atanasov, A. 6406, 10765  
 Atanassov, A. 10765  
 Ataullah Khan, M. 6893  
 Ataullah, M. 5979, 5980  
 Athar, M. 8038  
 Athayde, J. T. 3415  
 Athow, K. L. 3747, 3749, 5699, 6752  
 Atkins, R. E. 334, 335, 5070  
 Atkinson, B. G. 4972, 9549  
 Atkinson, T. G. 7970, 8124  
 Atkinson, W. O. 598, 608, 609, 8346  
 Atmowidjojo, S. 2693  
 Atrashenok, N. V. 2811  
 Atrashkevich, L. S. 10730  
 Atsmon, D. 1723, 1759, 4886  
 Attarde, D. R. 7929  
 Attavian, B. N. 8564  
 Attolico, M. 2675  
 Atvar Singh 4315  
 Aubert, S. 1523  
 Aufhammer, G. 10514  
 Auger, S. 2731, 7770  
 Augustine, J. 9257  
 Augustine, J. J. 6662  
 Aujla, S. S. 6896, 8766  
 Auld, D. L. 983, 6788, 8621, 8623  
 Aung, L. H. 2724, 11147  
 Aung, T. 5963  
 Auquier, P. 3235  
 Aürmenka, B. I. 2901, 4854  
 Austin, D. F. 9800  
 Austin, M. E. 3595  
 Austin, R. B. 1722, 8694, 10315  
 Australia, Bureau of Scientific Services, CSIRO 193  
 Australia, Division of Plant Industry, CSIRO 2799  
 Austria, Bundesanstalt für Pflanzenbau und Samenprüfung in Wien 4811  
 Autran, J.-C. 4825, 6882, 10344  
 Autrey, J. C. 8321  
 Avadhani, K. K. 4178, 5072, 7165, 7170, 7173, 10584  
 Avakian, T. M. 3426



- Avakyan, Ts. M. 3426  
 Avakyan, V. A. 1678, 1785  
 Avalos, Q. F. 6731  
 Avasthi, A. K. 986  
 Avato, P. 10469  
 Avdeeva, M. M. 6279  
 Avendaño, R. E. 3241  
 Averett, J. E. 5747  
 Aver'yanova, M. A. 7580  
 Avey, D. P. 2923  
 Avezdzhinov, R. M. 9717  
 Avezdzhanova, G. P. 1176  
 Avilova, L. D. 10549  
 Avinash Chandra 2046, 8113, 8854  
 Aviv, D. 5349, 6400, 7441  
 Avivi, L. 1773, 4880, 7919  
 Avramchuk, N. G. 7302, 9757  
 Avramenko, B. I. 1729, 2901, 4854, 7921  
 Avtar Singh 2248, 9003, 9816, 10682  
 Avtomonova, L. E. 2296  
 Avtonomov, V. A. 5285, 7390, 9811  
 Awadallah, A. M. 2507  
 Awadhesh Kumar 8854  
 Awan, M. A. 6137  
 Awonaike, K. O. 6719  
 Axelsson, F. 7657, 10043, 10058, 10071, 10103  
 Axinte, M. 8981  
 Axinte, S. 8981  
 Axmann, H. 4881  
 Axtell, J. D. 4150, 8133, 8136, 8880  
 Ayabe, T. 617, 9034  
 Ayad, G. 8569  
 Ayala, H. G. 10569  
 Ayanaba, A. 3761  
 Ayats, J. D. 10747  
 Ayaydin, F. 3440  
 Ayazlat, M. 8935  
 Aycock, M. K., Jr. 5351, 6251, 7433, 10780, 10781  
 Ayeh, E. 8509  
 Aylmer, J. M. 4681  
 Ayrapetova, S. A. 4652  
 Aytenfisu, A. 1765, 2935  
 Ayuk-Takem, J. A. 1120  
 Azad Khanaqa 10788  
 Azael, A. 10101  
 Azcón, R. 6951  
 Azcona, J. O. 5080  
 Azem, M. A. 3798  
 Azhibayev, I. T. 8221  
 Azimdzhanov, I. M. 4540  
 Azimov, A. R. 5496  
 Azimova, A. G. 6351, 9004  
 Azizov, A. B. 3343  
 Azmi, A. R. 7128  
 Azoeuf, P. 8465  
 Azzini, A. 10744  
 Ba-Angood, S. A. 10258  
 Baan Hofman, T. 10637  
 Baba, H. 890  
 Baba, T. 6745  
 Babadzhanova, M. A. 2296  
 Babaev, M. Sh. 2907, 3917  
 Babaev, R. I. 5398  
 Babalola, O. 7715, 9303  
 Babamuratov, Kh. 4390, 7382  
 Babanazarov, B. K. 1478  
 Babatola, J. O. 7224  
 Babayan, R. S. 1165  
 Babbel, G. 5807  
 Babić, M. 1916  
 Babicheva, Z. N. 5523  
 Babintseva, V. I. 183  
 Babitskiĭ, A. F. 249  
 Babler, S. 7105  
 Babloyan, V. S. 4652  
 Babos, K. 9176  
 Babu, C. N. 5319  
 Babu, C. R. 7758  
 Babu, L. C. 6464  
 Bachchhav, M. B. 10756  
 Bachinskaya, L. M. 3895  
 Bachiredy, V. R. 3141  
 Bachshinyan, A. I. 1457  
 Bacska, P. 4136  
 Badalov, P. P. 9169  
 Badalova, M. 9822  
 Badaya, S. N. 7387  
 Bäder, G. 8448  
 Bădescu, G. 752, 3512  
 Bădescu, L. 752  
 Badillo-Feliciano, J. 236  
 Badino, M. 3709  
 Badoux, S. 3222, 7264  
 Badraiah 2120, 10596  
 Badulina, E. I. 8841  
 Badwal, S. S. 2400, 7483  
 Bae, S. H. 351, 3093, 3094  
 Baenziger, P. S. 5001, 6109  
 Baer, G. R. 7275, 7276  
 Baer, M. A. 7276  
 Baerheim Svendsen, A. 5530  
 Bærug, R. 1309  
 Baets, A. de 3444  
 Baetz, W. 4334  
 Bagga, S. 7670  
 Baggett, J. R. 5545  
 Baghel, S. S. 10582  
 Bagirov, B. A. 727  
 Bagrawat Singh 11055  
 Bagryanskaya, N. A. 2496, 10461  
 Bagulho, F. 10351  
 Bagulho, F. C. 10281  
 Bah, P. C. 7069  
 Bahadur, B. 5654  
 Bahadur, P. 3972  
 Bahandari, D. R. 2314  
 Bahariev, D. 9279  
 Bahia, D. B. 6470  
 Bahl, J. 8699  
 Bahl, P. N. 1022, 6791, 9332  
 Bahrenfus, J. B. 3748, 3750, 3764, 5676, 5677, 5678, 5679, 5680  
 Bai, J. K. 2099  
 Bai, Q. 5125  
 Bai, S. X. 4855  
 Baier, A. C. 2968  
 Bailey, A. V. 4112  
 Bailey, C. H. 1436  
 Bailey, J. C. 555, 10729  
 Bailey, L. G. 4100  
 Bailey, M. J. 4346, 4353  
 Bailey, T. 5961, 7006  
 Bailey, T. B. 4930  
 Bailey, T. B., Jr. 2898, 4046  
 Bainiwal, C. R. 9338  
 Bains, G. S. 9696  
 Bains, S. S. 9060, 9329  
 Bairagi, P. 1216, 2145  
 Bajaj, K. L. 876, 1838, 9226, 9235  
 Bajaj, Y. P. S. 648, 1895, 2662, 4205, 5713, 6116, 6848, 8093  
 Bak, H. 6765  
 Bak, K. Y. 11155  
 Bak, S. J. 2150  
 Bak, Y. B. 6611  
 Bak, Y. K. 6587  
 Bak, Y. S. 5533  
 Bakanidze, M. Sh. 3571, 9406  
 Baker, A. M. R. 5669  
 Baker, D. E. 4285  
 Baker, D. N. 539  
 Baker, J. B. 3198  
 Baker, L. R. 831, 832, 833, 834, 835, 4604, 7689, 10986  
 Baker, R. J. 1731  
 Bakhareva, Zh. A. 10380, 10553  
 Bakhareva, Zh. I. 4889  
 Bakhariev, D. 9279  
 Bakhshinyan, A. I. 1457  
 Bakhshinyan, H. I. 1457  
 Bakinovskaya, E. O. 7000  
 Bakken, T. J. 5618  
 Bakker, J. 1558  
 Baksh, S. 407, 8565  
 Bakulin, V. T. 2565, 9179  
 Bala, A. A. 8631  
 Balaam, L. N. 4846  
 Balaiah, C. 9078  
 Balakhnina, V. P. 8708  
 Balakrishna Pillai, K. 6193, 6194  
 Balakrishna Rao, M. J. 3160  
 Balakrishnan, G. 9300  
 Balakrishnan, R. 10895  
 Balakrishnan, S. 9087  
 Balandreau, J. 8192  
 Balashov, T. N. 5707  
 Balashova, I. T. 11066  
 Balashova, N. N. 921, 1556, 5707, 11066  
 Balasko, J. A. 8016  
 Balasubramanian, G. 4160, 5310  
 Balasubramanian, R. 2118, 9658  
 Balasundaram, N. 5320  
 Balayan, V. M. 1725  
 Bal'chynene, L. S. 1676  
 Baldha, P. L. 4117  
 Baldi, G. 2103, 3169  
 Báldy, B. 7699  
 Baldzhieva, M. 6460  
 Balevska, P. K. 4921  
 Balicka, M. 3462  
 Baliko, W. 9592  
 Bálint, A. 9548, 9915, 9916  
 Balint, L. 7773  
 Baljjeva, M. 6460  
 Balkandzhieva, Yu. 8104  
 Balkanjieva, J. 8104  
 Balko, L. G. 8824, 8825, 10470  
 Ball, S. T. 7517  
 Balla, L. 5883, 8711, 9433, 9463, 10355  
 Ballal, A. L. 2509  
 Ballington, J. R. 8427, 9145  
 Balmer, E. 4064  
 Balšan, J. 1823  
 Baltensperger, A. A. 8942  
 Baluch, M. 7370  
 Baluch, S. J. 416, 5171, 5190  
 Balyasnikova, T. I. 9156  
 Balyk, V. M. 4869, 6931  
 Balyura, V. I. 4231  
 Bamboukas, D. 9075  
 Banba, H. 7656  
 Bandana Bandyopadhyay 3744  
 Bandesha, A. A. 7368, 7369  
 Bandion, F. 779, 10937  
 Bandyopadhyay, A. 4454, 8375  
 Bandyopadhyay, B. 3744  
 Banerjee, S. P. 662, 4217, 10735  
 Bång, H. 3322  
 Bång, U. 3322  
 Baniță, E. 9493  
 Banitšë, E. 9493  
 Bankapur, V. M. 1469, 1551, 3704, 5615, 5616  
 Bannikova, V. P. 8099  
 Bansal, H. C. 5041  
 Bansal, Y. K. 19  
 Banse, H., J. 5253  
 Bantari, E. E. 4104  
 Banu, K. 8190  
 Banuett-Bourrillon, F. 10558  
 Banuett-Bourrillon, F. B. 8128  
 Banya, G. S. 3174, 9654  
 Banzatto, D. A. 333  
 Bao, X. Z. 2932  
 Bao, Z. H. 3475  
 Bapat, D. R. 4149  
 Bapat, S. R. 9654  
 Bar-Nun, N. 7787  
 Bára, I. I. 5406, 9095  
 Baranov, V. D. 1361  
 Baranova, L. E. 3265  
 Barashkova, E. A. 1826, 5914, 5915, 9232, 9481  
 Barashkova, T. A. 4430  
 Baratashvili, D. Sh. 1625, 2387, 2393, 9866  
 Barbeau, G. 10943  
 Barber, S. 7201  
 Barber, S. A. 5000, 9585  
 Barbier, M. 5346  
 Barbin, D. 10888, 10889  
 Barbosa Filho, G. C. 4173  
 Barbosa, H. M. 266, 267  
 Bărbulescu, A. 10588  
 Barbulesku, A. 10588  
 Barcikowska, B. 3462  
 Barclay, D. 1300, 5568  
 Bardat, F. 8699  
 Bardhan Roy, S. K. 2143, 5110, 9684  
 Bardy, N. G. 11133  
 Bareš, I. 1658  
 Barevadia, T. N. 3191  
 Barham, R. W. 4085, 10530  
 Bariggi, C. 3241  
 Barikov, B. A. 9988  
 Barisashvili, G. M. 1797  
 Barisashvili, M. A. 7913  
 Barkai-Golan, R. 11061  
 Barkat Ali Soomro 1345  
 Barker, K. R. 7287  
 Barker, R. E. 3227  
 Barker, S. 5428  
 Barksdale, T. H. 7717  
 Barlass, M. 775, 9166  
 Barlow, K. K. 7886  
 Barnard, J. 228  
 Barneby, R. C. 8272  
 Barnes, D. K. 444, 3238, 3247, 3249, 3250, 3252, 5210, 5211, 6249  
 Barnes, R. D. 7635  
 Barnes, W. C. 4883  
 Barnett, F. L. 1253, 7137  
 Barnett, N. M. 311  
 Barnett, O. W. 10670  
 Barnett, P. E. 9946  
 Barnett, R. D. 1875, 10408  
 Barancelli, S. 4857, 4871  
 Barooah, S. 8286  
 Baroudi, A. 6317  
 Barradas, M. M. 2771  
 Barratt, D. H. P. 3729  
 Barrau, J. 1388  
 Barredo, A. T. 563, 564, 566  
 Barredo, F. C. 564, 566  
 Barrentine, W. L. 6753  
 Barreto, P. D. 11090  
 Barrett, J. A. 3125, 4817, 9416  
 Barrientos P., F. 10899  
 Barrios, V. 4155  
 Barriga B., P. 5902  
 Barriit, B. H. 4543, 4547, 5481, 9148, 9980, 9989, 10900, 10901  
 Barry, B. D. 5012  
 Barry, D. 10508  
 Barry, P. 4319  
 Barsukov, A. D. 6047  
 Barsukov, P. N. 7080  
 Barsukova, O. N. 4518  
 Bartha, L. 7746  
 Bartkowiak-Broda, I. 3458  
 Bartley, B. G. D. 7482  
 Bartolini, G. 713  
 Barton, N. H. 1001  
 Bartoš, P. 4911  
 Bartsits, A. M. 7457  
 Bary, A. A. 2930  
 Basak, S. L. 3380, 3381, 4400, 6366, 7401, 9017  
 Basang, C. R. 3953  
 Basavaraj, B. 718  
 Basavarajaiah, A. B. 2427  
 Bashan, Y. 4655  
 Bashaw, E. C. 3147, 3149, 3229, 4148, 6125  
 Bashir, M. 7369  
 Basile, R. 3959  
 Basina, I. G. 9110, 10860  
 Basionia M. Hassan 3487  
 Basistov, A. A. 293  
 Baskoro, J. de B. 6811  
 Basova, S. V. 9182  
 Bassett, M. J. 11097  
 Bassi, A., Jr. 11024  
 Bassi, D. 1433  
 Bassi, F. G. A. 4070  
 Bassiri, A. 1081, 5226  
 Basso, F. 5071  
 Bassols, P. A. 4281  
 Bastidas R., G. 10088  
 Bastien, D. 4838  
 Bastos, C. N. 629  
 Basu, C. M. 8379  
 Basu, M. S. 3381  
 Basu, N. C. 2320  
 Basu, R. K. 5405, 5636  
 Basu Raychaudhuri, N. C. 2161, 9698  
 Basuchaudhuri, P. 373



- Baswana, K. S. 9336  
 Baszczynski, C. L. 4972, 9549  
 Bates, J. W. 3504  
 Bates, L. S. 6952  
 Bateson, W. 1002  
 Batikyan, H. G. 1419  
 Batikyan, G. G. 1419, 6710, 9089  
 Batikyan, H. G. 1419  
 Batista, C. M. 580, 581, 7429, 7747  
 Batovici, R. 1445, 9107  
 Batra, S. R. 324  
 Batra, V. I. P. 8118, 10543  
 Batten, S. M. 7242, 7270, 8228  
 Batty, R. G. 1933  
 Batygin, N. F. 1046, 9348  
 Bätz, W. 5776  
 Bauch, G. 7861  
 Bauch, W. 4615  
 Baudin, P. 570  
 Bauer, L. I. de 4907  
 Bauer, M. de L. de la I. de 4907  
 Bauer, R. 2521  
 Baum, B. R. 4100, 7872  
 Baum, J. A. 4976  
 Baumgardner, R. A. 10701  
 Baumunk-Wende, E. 10171, 10172  
 Baur, M. 4418  
 Bausch, P. 5009  
 Bavtuto, G. A. 4528, 7548  
 Bawolska, M. 8334  
 Bayles, M. B. 10721  
 Bayles, R. A. 5815, 5819, 5820  
 Bayonove, C. 4571  
 Bayunova, Z. G. 7314  
 Bazhanova, A. P. 2295, 5277, 8988  
 Bazzi, C. 1451  
 Bazzocchi, R. 1433  
 B"chvarova, R. B. 5386  
 Beach, J. H. 2791  
 Beachell, H. M. 5094, 5099, 5101, 6140  
 Beachy, R. N. 6843  
 Beadle, G. W. 9541  
 Beale, P. E. 3287, 6268, 7299  
 Bean, E. W. 3221  
 Bean, G. A. 3604  
 Bean, M. M. 2149  
 Beane, J. 3007  
 Beard, J. B. 7242, 7263, 7270, 8228  
 Beatson, R. A. 7439  
 Beatty, K. D. 11134  
 Beauville, M. A. de 1221  
 Bebyakin, V. M. 10352  
 Becerra Rodríguez, S. 9134  
 Bechtel, D. B. 2040  
 Beck, D. 9576, 9594  
 Becker, F. A. 198  
 Becker, P. 2550  
 Beckett, J. B. 6018, 6019, 9552  
 Beckett, J. C. 8053  
 Bedbrook, J. R. 1978, 3014  
 Bedeković, J. 7066  
 Bedendo, I. P. 3197  
 Bédérèu, S. F. 10014  
 Bedin, P. 1320  
 Bednář, J. 3600  
 Bedő, E. 8986  
 Bedő, K. 8986  
 Bedő, Z. 10355  
 Bedolla, S. 10482  
 Beebe, S. 6730  
 Beebe, S. E. 8586  
 Beech, D. F. 11184  
 Beer, M. C. de 9044  
 Beer, S. V. 678, 4517, 4689  
 Beese, G. 3086  
 Begendzhaev, R. 3261  
 Beglaryan, S. A. 4573  
 Begum, J. 8168  
 Behera, N. C. 1564  
 Behizadeh, S. N. 10409  
 Behl, K. L. 2336, 6371  
 Behl, R. K. 2992, 3112, 4847  
 Behnke, M. 4354  
 Behrens, H.-O. 9840  
 Behrens, U. 10432  
 Beineke, F. 8454  
 Beineke, W. F. 804  
 Bekbanov, B. 544  
 Bekele, E. 1661  
 Bekrić, V. 4729  
 Belaya, L. P. 362  
 Belea, A. 5814, 8756  
 Belej, J. 2958, 6928  
 Belford, H. S. 7729, 7730  
 Belgium, Centre de Recherches Agronomiques de l'État, Gand 797  
 Belgium, Centre de Recherches Agronomiques de l'État, Gembloux 25  
 Belik, T. A. 10998  
 Belin Peruffo, A. dal 1742  
 Belkina, R. I. 4872  
 Bel'ko, N. B. 7013  
 Bell, D. K. 4486  
 Bell, H. E. 819  
 Bell, J. N. B. 8935  
 Bell, R. L. 5777, 8395  
 Bell, W. C. 4822  
 Belletti, P. 10110  
 Belliard, J. 5065, 5066, 8874  
 Bellini, E. 713, 3558, 3565, 4575, 8411, 10881  
 Bello, A. B. 6763  
 Bello, L. L. 6999  
 Bellotti, A. 3416, 4422, 4424, 6393  
 Bellotti, A. C. 8329  
 Bélo, M. 333  
 Belostotskaya, S. Kh. 807  
 Belousov, A. A. 275, 10485  
 Belov, V. I. 116  
 Belova, G. I. 7782, 8305, 11177  
 Belova, L. B. 4903  
 Belova, T. V. 2032  
 Below, F. E. 3041  
 Belyaev, V. V. 806, 2575  
 Belyaeva, E. G. 2910  
 Belyaeva, I. D. 2868  
 Belyakova, E. M. 9440  
 Belyakova, G. N. 3722  
 Bemis, W. P. 1547, 1548  
 Ben Khedder, M. 1520  
 Ben-Moshe, E. 3372  
 Ben-Ya'acov, A. 5464, 5465  
 Benada, J. 4828  
 Bencomo Pérez, I. 9863  
 Bendesha, A. A. 7368, 7369  
 Benedict, J. H. 9824  
 Benfatto, D. 647  
 Beni, G. 1736  
 Beninga, M. 5066  
 Benito, C. 5852  
 Beniwal, M. S. 2336  
 Beniwal, S. P. S. 956  
 Benjamin, D. M. 5520  
 Benner, F. 608, 609  
 Benner, J. F. 8346  
 Bennett, F. G. A. 5925, 10378, 10379  
 Bennett, M. D. 1045, 3909, 4264, 7866, 7978, 9383  
 Bennici, A. 4857  
 Benoit, L. F. 2579  
 Benson, B. L. 1528, 7666  
 Benvenuti, A. 2880  
 Bera, A. K. 6179  
 Berbec, A. 5343  
 Berbigier, A. 295, 8121  
 Berdahl, J. D. 5800  
 Berdiev, S. 5305  
 Berdiev, S. M. 9803  
 Berding, N. 4405, 7408  
 Berdzenidze, V. G. 2513  
 Bereshnoi, P. 39  
 Berezhnoi, P. 39  
 Berg, C. C. 3216, 7257  
 Berg, M. A. 2953  
 Berg, T. 1250, 1252, 4268  
 Bergamini, A. 3519, 3520, 6477, 8422  
 Bergendal, P.-O. 4506, 5411  
 Bergeron, E. 6676  
 Bergh, B. O. 1470  
 Bergman, J. M. 6876  
 Bergman, J. W. 7868  
 Bergstrom, G. C. 2632  
 Beringer, J. E. 6241  
 Berkenkamp, B. 454  
 Berkutova, N. S. 2947, 10420  
 Berlin, J. D. 5296  
 Berlyand-Kozhevnikov, V. M. 7973  
 Berlyn, M. B. 4432, 8345  
 Bernard, M. 993, 2994  
 Bernard, R. L. 7769, 8598, 9314  
 Bernard, S. 3989  
 Bernardo, L. 9683  
 Bernáth, J. 9877, 9878  
 Bernays, E. A. 4172  
 Bernhard, R. 1435  
 Bernier, C. C. 4683, 6697, 11087  
 Berrang, P. 1501  
 Berrier, R. 6882  
 Berrios, D. 7325  
 Berry, G. J. 5701  
 Berry, J. W. 1547, 5651  
 Berry, R. E. 5368, 5369  
 Berthaud, J. 8356  
 Bertheau, Y. 160  
 Berthelem, P. 6683  
 Berthou, F. 8353  
 Bertolini, M. 5997, 7061  
 Bertolini, P. 1311  
 Bertram, H.-L. 1126  
 Bervillé, A. 281, 6063, 8061, 9561, 9591  
 Berzin'sh, P. Ya. 10635  
 Besch, H. 7108  
 Bespechal'naya, V. V. 8408  
 Besschetnov, P. P. 794, 3625, 6564  
 Besschetnov, V. P. 4560  
 Bessey, P. M. 8511  
 Betancourt, J. 7761  
 Betanzos Mendoza, E. 10503  
 Betin, M. 7243, 7254  
 Bettencourt, A. J. 6423, 6424, 10800  
 Beuckeleer, M. de 2777  
 Beunard, P. 10148  
 Beuselincq, P. R. 8243  
 Beute, M. K. 3481  
 Beutler, J. A. 2318  
 Beversdorf, W. D. 1392, 1393, 1406, 2720  
 Bey, C. F. 1497, 6559  
 Beynon, J. L. 947  
 Bezbaruah, H. P. 624, 2386, 9865  
 Bezerra, J. E. F. 7598  
 Bezhuashvili, N. 1491, 2545  
 Bezhuasvili, N. A. 2545  
 Bežo, M. 6955, 9468  
 Bezobrazova, L. V. 1064  
 Bhadoria, S. S. 1776  
 Bhadoria, S. S. 1776, 2890  
 Bhagat, N. R. 7525  
 Bhagchandani, P. M. 872  
 Bhagsari, A. S. 5272, 5273  
 Bhakbhotia, J. R. 10886  
 Bhalla, J. K. 1572  
 Bhambota, J. R. 10883  
 Bhan, S. 4481  
 Bhanwar Singh 2956  
 Bhanwar Singh Chaudhary 1292  
 Bhanwra, R. K. 6240  
 Bhapkar, D. G. 4468  
 Bharati, M. P. 11125  
 Bhardwaj, B. L. 1197  
 Bhargava, S. D. 407  
 Bhargava, B. S. 8632  
 Bhargava, L. P. 933  
 Bhargava, S. 318  
 Bhargava, S. C. 5376  
 Bhaskara Rao, D. S. 1356  
 Bhaskaraiah, K. B. 9302  
 Bhaskaran Nair, V. K. 3494  
 Bhaskaran, S. 5041, 8337  
 Bhaskaran, U. P. 2110  
 Bhat, B. K. 2397  
 Bhat, N. R. 2121  
 Bhat, R. P. 2406, 2427  
 Bhat, S. R. 1792, 2916, 8727  
 Bhatade, S. S. 10712  
 Bhati, D. D. 4706  
 Bhatia, A. 110  
 Bhatia, C. R. 955, 1716  
 Bhatia, M. S. 421, 10629  
 Bhatia, S. K. 1840, 2273, 2274  
 Bhatnagar, C. P. 986  
 Bhatnagar, P. S. 2139, 2349  
 Bhatnagar, S. K. 4122, 7396, 7398  
 Bhatt, D. D. 10181  
 Bhatt, D. P. 10086  
 Bhatt, G. M. 8714  
 Bhatt, K. C. 5074  
 Bhatt, M. L. 5131  
 Bhattacharjee, D. P. 380  
 Bhattacharya, A. K. 3155, 5954  
 Bhattacharya, B. 8944  
 Bhattacharya, K. R. 2154, 3175, 7198  
 Bhattacharya, N. C. 815  
 Bhattacharya, N. M. 2402  
 Bhattacharya, P. K. 10610  
 Bhattacharya, R. K. 2133, 6141  
 Bhattacharya, S. 2707  
 Bhattacharyya, R. K. 2133  
 Bhatti, D. S. 8561  
 Bhaumik, P. K. 2415, 2416, 8368  
 Bhivare, L. N. 9667  
 Bhojwani, S. S. 10674, 10676  
 Bhore, D. P. 8435  
 Bhowal, J. G. 7918  
 Bhuiya, A. D. 8622  
 Bhullar, B. S. 8594, 10182, 11117  
 Bhullar, G. S. 110, 1808  
 Bhumannavar, B. S. 2428  
 Bhumiratana, A. 8636  
 Bhutani, R. D. 8544, 11071  
 Bhuva, H. P. 737  
 Bi, F. Y. 4044  
 Bi, Z. B. 3151  
 Bialobok, S. 3648  
 Bianchi, A. 1935  
 Bianchi, A. A. 5808  
 Bianchi, G. 2915, 4785, 10469  
 Bianco, V. V. 2668, 2672, 2673  
 Biancolatte, E. 2873, 3959  
 Bibik, E. V. 8096  
 Bible, B. 3305  
 Bible, B. B. 6281  
 Bickel, J. C. 8041  
 Bidani, M. 4205  
 Bidinger, F. R. 8885  
 Bidney, D. 6311  
 Bidyukova, G. F. 192  
 Bien, S. 2443  
 Bietz, J. A. 10242  
 Bigeva, H. 10188, 10189  
 Bigeva, Kh. 10188, 10189  
 Bigger, M. H. 7590  
 Biggerstaff, D. R. 5028  
 Biggs, R. H. 4537  
 Bihari Lal, B. 701  
 Bilis, Yu. 458  
 Billot, M. R. le C. de 3055  
 Binderová, A. 1256  
 Binding, H. 4789, 5752  
 Bindra, A. S. 3616, 10015  
 Bingham, E. T. 2214, 3251, 3264, 3754, 5215, 5221, 6246, 7854, 10663, 10667, 10668  
 Bingham, J. 1730, 9380  
 Bingham, R. T. 1513  
 Binns, A. N. 2364  
 Binns, W. W. 5529  
 Bintliffe, E. J. B. 6789  
 Bir Bahadur 5654  
 Birajdar, J. M. 6355  
 Birchfield, W. 3772, 11174  
 Birchler, J. 1954  
 Birchler, J. A. 4013, 4961, 4964, 5990, 5993, 6013  
 Bird, G. W. 8289  
 Bird, I. F. 6222  
 Bird, L. S. 9820  
 Bird, N. 7484  
 Bird, R. M. 276, 4999, 7065, 8052, 8053  
 Bird, R. McK. 4999



- Birnaure, V. 5258  
 Birot, Y. 7644, 7654, 10039  
 Bisaria, A. K. 10743  
 Bischoff, K. P. 565  
 Biscoe, P. V. 7841, 8325  
 Bisen, P. S. 6664  
 Bisen, S. S. 7122  
 Bishnoi, U. R. 214, 7984, 8780  
 Bishop, A. L. 8259  
 Bisht, S. S. 10287  
 Biskupski, A. 1092, 7003, 7019  
 Bisla, S. S. 9125, 9149  
 Bisson, J. 2550  
 Biswas, D. 2048  
 Biswas, S. 361, 3160, 9684, 9697  
 Biswas, S. R. 2603, 4697, 6800  
 Biten'kova, L. A. 4004  
 Bittinger, T. S. 6122, 8880, 10571  
 Bittner, H. 5269  
 Bitzer, M. J. 10590  
 Bivol, T. F. 8385  
 Bizheva, N. 6278  
 Bjarnason, M. 4054  
 Bjatnagar, D. K. 10079  
 Bjerg, B. 6692  
 Bjor, T. 6325  
 Björklund, S. 5420  
 Blaas, J. 599, 8341, 9036  
 Blackman, J. A. 3946, 5901  
 Blackstock, J. M. 3240  
 Blagrove, R. J. 6820  
 Blaha, J. 707, 8399  
 Bláha, L. 1803  
 Blahout, J. 1284  
 Blaim, H. 7273  
 Blake, G. M. 10954  
 Blake, R. C. 4521  
 Blakely, M. E. 7151  
 Blakeney, A. B. 4212, 7195, 8188  
 Blanch, P. A. 3961  
 Blanchet, R. 9317, 10145  
 Blanco, A. 5867, 6269, 10327  
 Blanco, F. 2718  
 Blanco Sánchez, N. 9863  
 Blankovskaya, T. F. 10297  
 Blaschke, J. R. 5407  
 Blaschuk, W. 10343  
 Blashchuk, I. P. 4640  
 Blažek, J. 4510  
 Blazhiyev's'ka, G. P. 410  
 Bleton, D. 8330  
 Blevins, D. G. 311  
 Blinc, R. 9411  
 Bliss, F. A. 7742, 9295, 11101  
 Blixt, S. 2739, 8619, 11179  
 Blok, I. 1546  
 Blokhin, N. I. 8752  
 Blom, P. S. 1229, 7633  
 Blondel, L. 715, 719  
 Blondon, F. 9558  
 Blotskaya, Zh. V. 3335, 6337, 8987  
 Blum, A. 5084, 6970, 8718  
 Blumenberg, B. 5733  
 Blunden, G. 5529  
 Blüthner, W.-D. 132, 5871  
 Blyudenov, M. A. 7864  
 Boamah-Mensah, E. 2508  
 Board, J. E. 8166, 9681  
 Bober, A. F. 7293  
 Bobodzhanov, V. A. 2742, 11051  
 Bobrysheva, M. N. 9986  
 Bocharnikova, N. I. 823, 893, 1556  
 Bocharova, V. M. 4384  
 Bochkarev, N. I. 5384  
 Bochkovoi, A. D. 639, 9883  
 Bock, H.-D. 8702  
 Bockelman, H. E. 3124, 5022  
 Bockholt, A. J. 6124, 8063, 10482  
 Bócsa, I. 7281  
 Boda, J. 10077  
 Bodelan, O. M. 11177  
 Bodmer, W. F. 9344  
 Boe, A. A. 5618, 10646  
 Boerma, H. R. 1580, 8611, 10144, 11137  
 Bogachkov, V. I. 9504, 9507  
 Bogdanova, E. D. 195  
 Bogdanovich, M. V. 1178  
 Bogdanowicz, M. 7003  
 Boggini, G. 1741, 3896  
 Bogorad, L. 4017  
 Bogoyavlenskaya, O. N. 6349  
 Bogucki, S. 6312  
 Boguslavskii, R. L. 7973  
 Bogyo, T. P. 10279  
 Bohn, G. W. 6633, 7682, 11005  
 Bohnert, O. 6205  
 Bohorova, N. 2413  
 Boiko, L. I. 4687  
 Boisen, S. 10546  
 Bojar, K. 8393  
 Bójtös, Z. 8954  
 Bokhorova, N. 2413  
 Bolduc, R. 5908  
 Boldyrikhina, V. N. 693, 694, 696, 9935  
 Boles, H. P. 1872, 5061  
 Bölke, W. 3012  
 Bollich, C. N. 1209, 7204  
 Bolling, H. 7941  
 Bollini, R. 10108  
 Bollmann, M. P. 8480  
 Bolotnikova, V. D. 3591  
 Bol'shakov, N. V. 1041  
 Bolte, M. 6081  
 Bolton, A. T. 2191  
 Bolton, J. K. 6111  
 Bolton, J. L. 2228  
 Bome, N. A. 4872  
 Bond, D. A. 2664, 2667, 7737, 11088  
 Bond, R. S. 2332  
 Bondad, N. D. 1466  
 Bondar', L. M. 9326  
 Bondar', L. V. 2484, 3529, 9109  
 Bondar', V. V. 10927  
 Bondarenko, A. A. 6490, 10864  
 Bondarev, I. 6968  
 Boneta, E. 9127  
 Bonfand, A. 9894  
 Bonga, J. M. 1509  
 Boni, L. E. 9976  
 Boni, P. 2880  
 Bonino, M. F. A. 5080  
 Bonish, P. M. 8265  
 Bonn, W. G. 3528  
 Bonnemann, J. J. 10286  
 Bonner, F. T. 803  
 Bonnet, A. 1523, 1525, 3654  
 Bonnet, B. 8452  
 Boon, J. 679  
 Boonwite, C. 3165, 5106, 5111  
 Boorsma, P. A. 11089  
 Boote, K. J. 4484, 11149  
 Booth, G. D. 1076  
 Boraiah, G. 5635  
 Borangaziev, K. B. 8221  
 Borangazieva, A. K. 9747  
 Borcean, I. 6100  
 Borchmann, W. 4466  
 Bordeleau, L. M. 4287  
 Bordyuzhevich, E. L. 6064, 10502  
 Boreiko, A. M. 10137  
 Borggaard, T. 9052  
 Borghi, B. 1735, 1739, 1817, 1818, 1819, 1846, 2915  
 Borikar, P. S. 1196  
 Borisenko, N. Kh. 8773  
 Borisenkov, Yu. P. 2962, 3897  
 Borisov, V. F. 9719  
 Borisova, U. F. 7304  
 Borisyuk, V. A. 10761  
 Borkovskaya, V. A. 9365  
 Bormataü, Ü. Ya. 3912, 6990, 6994  
 Bormotov, V. E. 3912, 6919, 6990, 6994, 7422  
 Börner, T. 1086, 6011  
 Bornschein, A. 6993  
 Borodachev, M. N. 2535  
 Borodina, E. I. 559  
 Borodina, N. A. 5513  
 Borodulina, A. A. 642  
 Borojević, S. 170, 1748, 6938  
 Borovskii, M. I. 9578  
 Boroznets, I. A. 10864  
 Borrero, A. 11132  
 Borrill, M. 6227  
 Børnheim, A. 8398  
 Borys, M. W. 8119  
 Borzakiv's'ka, Ĭ. V. 3562  
 Borzakovskaya, I. V. 3562  
 Borzucki, R. 1545  
 Bos, G. 1553, 3670  
 Bos, I. 4803, 4804  
 Bos, L. 4626  
 Bosáková, Z. 4284  
 Boscan Odor, D. R. 6801  
 Bose, S. 2048, 3744  
 Bosemark, N. O. 2339  
 Bošnjak, D. 5212  
 Bostock, R. 5261  
 Boswell, T. E. 5276, 7518  
 Botez, A. 9783  
 Botez, C. 8810  
 Botha, F. C. 3068  
 Botha, P. J. 3068  
 Bothmer, R. von 2054, 5048  
 Boucaud, M.-T. de 7444  
 Bouchard, M. 5598  
 Bougourd, S. 10051, 10052  
 Bouharmont, J. 9399  
 Boukema, I. W. 7520  
 Boulter, D. 2702  
 Boulton, R. 7611  
 Boulton, R. E. 3009, 3131, 7011  
 Boundy, C. A. P. 4121  
 Bouquet, A. 3610, 7612, 8437  
 Bourgeois, F. 6686  
 Bourgeois, J. J. 3875  
 Bouriquet, R. 4875  
 Bourneuf, P. 8699  
 Bourque, D. P. 2366  
 Bouton, J. H. 6111  
 Bouwkamp, J. C. 6867  
 Bovtramovich, I. B. 8958, 9759  
 Bovtramovich, N. F. 9759  
 Bowen, H. H. 3548, 3589, 5423, 5447, 5491, 6510  
 Bower, D. B. 3276  
 Bowers, J. L. 7675, 10997, 11024  
 Bowman, J. 10694  
 Boyarinova, S. I. 6920, 6957  
 Boyarovich, A. K. 708, 3549  
 Boyer, C. D. 8818, 10170  
 Boyer, C. H. 7727  
 Boyer de la Giroday, E. 570  
 Boyer, J. S. 11144  
 Boyle, M. G. 258  
 Bozhinova-Boneva, I. 10009  
 Božović, I. 4729  
 Brach, E. J. 4822  
 Bradfield, G. E. 7646  
 Bradfute, O. E. 10511  
 Bradshaw, A. D. 2184  
 Braga, N. R. 11175  
 Brahmappa 7789, 7790  
 Brain, P. J. 3309  
 Brakefield, P. M. 2239  
 Brakke, M. K. 3034  
 Brançaõ, N. 10568  
 Branch, W. D. 2442, 5391, 5394  
 Brandon, D. M. 4189, 5117, 5119  
 Brandt, A. 4084  
 Braniste, N. 1429, 1436  
 Branlard, G. 2945  
 Branzanti, C. E. 6516  
 Brar, D. S. 2066, 2067, 7039  
 Brar, G. S. 3459  
 Brar, J. S. 8594, 11117  
 Bratsvedal, Ø. 10055  
 Bratu, I. 9783  
 Braun, E. J. 10491  
 Bravo, J. A. 3752, 5682  
 Bray, R. 6344  
 Bray, R. A. 6254, 9188  
 Brazil, Unidade de Execução de Pesquisa Âmbito Estadual de Brasília, EMBRAPA 8277  
 Breckenridge, C. 4212, 7202  
 Bredemeijer, G. M. M. 599, 3432, 8341, 9036  
 Breeman, J. F. van 10747  
 Breen, P. J. 8578  
 Breene, W. M. 8537  
 Breese, E. L. 9384  
 Breidenbach, R. W. 907  
 Breithaupt, B. H. 3759, 5693, 5694, 6766  
 Brennan, P. S. 2867  
 Bressan, R. A. 8554, 9038  
 Bressani, R. 1018, 1040  
 Bretschneider, H. 8844  
 Brettell, R. 3145, 4985  
 Brettell, R. I. S. 1186, 2008, 4038  
 Breukelen, E. W. M. van 10690  
 Brewbaker, J. L. 241, 242, 1121, 3039, 4007, 4018, 9518, 9542  
 Brewer, A. C. 9400  
 Brewer, J. G. 2461  
 Brewin, N. J. 3236, 6241, 10176  
 Brezhnev, D. D. 45, 827, 8680, 10075  
 Brezsnayev, D. D. 10075  
 Brickell, C. D. 5719  
 Bricker, T. M. 2647  
 Bridge, R. R. 3345  
 Briggs, K. G. 189, 1765, 2935, 5886  
 Brigham, R. D. 5377  
 Brilevskii, O. A. 687  
 Brill, W. J. 5221  
 Brim, C. A. 3762, 10128  
 Brindley, T. A. 9593  
 Brindza, J. 4848, 6955  
 Briner, H. U. 1251, 3207, 5188, 7300  
 Bringham, R. S. 6537, 9146  
 Brinholi, O. 1363  
 Brinkman, M. A. 1112, 2863  
 Brinsmead, R. B. 11184  
 Brisson, J. D. 3596  
 Brisson, N. 2719, 2730, 7763  
 Bristow, P. R. 9980, 10901  
 Brito, P. R. F. de 7752  
 Britten, E. J. 4732  
 Broadus, E. W. 7365  
 Brock, M. M. 5445  
 Brock, R. D. 1025, 1029  
 Brocklehurst, P. A. 79  
 Broda, Z. 5228  
 Brodel, C. F. 3588, 5470  
 Brodenko, A. A. 6545  
 Brody, T. 997, 3955  
 Broertjes, C. 4788  
 Broich, S. L. 5692  
 Broksh, V. L. 8972  
 Brolmann, J. B. 4314  
 Bromfield, E. S. P. 3277, 3761, 8609  
 Bromfield, K. R. 1595, 11170  
 Bronshtein, A. I. 11133  
 Bronson, C. R. 10376  
 Brooks, L. D. 2775  
 Broûé, P. 6754, 7765  
 Broughton, W. J. 6807  
 Browder, L. E. 1698, 1871, 4915, 5932  
 Brown, A. G. P. 5920  
 Brown, A. H. D. 800, 5036, 5236, 8076, 10260  
 Brown, C. M. 2989, 3991, 4933  
 Brown, C. R. 7361  
 Brown, D. E. 3255, 5208  
 Brown, J. C. 11162  
 Brown, J. F. 6976, 9987  
 Brown, J. W. S. 4844, 7742  
 Brown, M. S. 5291, 6348  
 Brown, P. D. 3002  
 Brown, R. H. 6111  
 Brown, S. A. 3561  
 Brown, S. J. 3389  
 Brownlee, H. 5224  
 Brücher, H. 4810  
 Bruck, R. I. 3627, 9180  
 Brückner, K. 3856  
 Bruckner, P. L. 8111  
 Bruehl, G. W. 3965, 6977



- Bruijn, G. H. de 3406  
 Brun, H. 1403, 5576  
 Brun, J. le 3937  
 Bruneau, A. H. 8938  
 Brünninghaus, G. 1119  
 Brunner, H. 935  
 Brunori, A. 85, 4881  
 Brusenko, L. I. 7060  
 Bryan, J. E. 4330  
 Brydon, A. C. 753, 8428  
 Bryunetkina, N. A. 154  
 Bryzgalov, V. A. 10066, 11004  
 Brzhezitskii, A. P. 9506  
 Bubbar, J. S. 105, 106, 7993  
 Bubarova, M. 10065, 10188, 10189, 11001  
 Bubryak, I. I. 1128, 10478  
 Buchanan, D. W. 6532  
 Buchenau, G. 10286  
 Buchenau, G. W. 5839  
 Buchholz, U. 5871  
 Buchloh, G. 3653, 10232  
 Buchner, E. 1234  
 Bucholtz, D. L. 4150  
 Buchvarova, R. B. 5386  
 Buckner, R. C. 426, 5180, 5193, 7255, 7258  
 Budantsev, P. B. 2568  
 Budaragin, V. A. 5531  
 Buddenhagen, I. W. 8208  
 Budin, K. Z. 1011, 8280  
 Budlińska, A. 51, 52, 53, 54, 55, 56  
 Budyak, V. T. 9767  
 Bueno, A. 10575  
 Buescher, P. J. 8020  
 Bugaenko, L. A. 992, 5715, 6823  
 Bugarčić, V. 7596  
 Bugge, G. 411, 5158, 7232  
 Buglio, A. R. 8996  
 Buglos, J. 7281  
 Bühling, J. 5151  
 Buiaiti, M. 2787, 3826, 4871, 5748  
 Buimistru, V. E. 10007  
 Buishand, J. G. 836, 6602, 6603  
 Buīvids, K. R. 6107  
 Bukanova, V. K. 10410  
 Bukarchuk, V. F. 10855  
 Bukasov, S. M. 45  
 Bucker, R. J. 416, 3027, 5171, 5190  
 Bukharov, A. F. 7719  
 Bukhbinder, A. A. 652  
 Bukhteeva, A. V. 428  
 Bulakh, A. A. 3202  
 Bulakh, P. P. 961  
 Bulatović, M. 2491, 3554, 5442, 9112  
 Bulatović, S. 3560  
 Bulińska, M. 3668  
 Bulko, O. P. 10418  
 Bullard, R. W. 5083, 8884  
 Bulow, J. F. W. von 7054  
 Bumerl, J. 3285, 4249  
 Bunce, J. A. 4415  
 Bünnemann, G. 9939  
 Buntovskii, R. P. 5378  
 Burba, M. 4418  
 Burchuladze, A. Sh. 9963  
 Burdaeva, L. M. 805  
 Burdenyuk, L. A. 10289  
 Burdick, B. A. 8796, 10132  
 Burdon, J. J. 4295, 4296, 7774, 10151  
 Burdon, R. D. 7813  
 Burdon, A. M. 6988, 8773, 10350  
 Burenin, V. I. 830, 9218  
 Buresová, M. 6799  
 Burga Mendoza, C. A. 8579  
 Burger, W. C. 3096  
 Burgii, V. P. 1599  
 Burgis, D. S. 5617, 9257  
 Burgman, J. 7698  
 Buril'kov, V. K. 892  
 Buriticá-Céspedes, P. 10805  
 Burk, L. G. 622, 2365, 2367, 2371, 2372, 3435, 4439, 5339, 7452  
 Burkard, G. 3858  
 Burke, M. J. 3958, 6203  
 Burkot, T. R. 5520  
 Burlov, V. V. 3472  
 Burneikene, R. S. 1676  
 Burner, D. M. 8016  
 Burnett, J. H. 4070  
 Burnett, P. A. 453, 455  
 Burnham, C. R. 5620, 9536, 9567  
 Burnouf, T. 4875  
 Burns, D. L. 11135  
 Burns, J. A. 6411  
 Burns, R. 6272, 6273  
 Burnside, O. C. 3770  
 Burpee, L. L. 484  
 Burr, T. J. 10938  
 Burris, J. S. 4060, 4735  
 Burrows, V. D. 227  
 Burrus, P. B., II 5180  
 Burson, B. L. 5173  
 Burt, R. L. 5767, 6236  
 Burton, G. W. 1181, 3209, 4112, 6114, 6201, 9634, 10562  
 Burton, H. 5040  
 Burton, H. R. 612  
 Burton, J. C. 3246, 3479, 11122  
 Burton, J. W. 3762, 10128  
 Burzo, I. 1445, 9107, 9929  
 Busch, R. H. 95, 9467  
 Busey, P. 1254, 5203  
 Bush, L. P. 7255, 7456  
 Bushnell, W. R. 2826  
 Bushuk, W. 1883, 3949, 10340  
 Busoli, A. C. 4173  
 Buss, G. R. 2724, 3774, 10139, 11147, 11154  
 Bussell, W. T. 7698, 9242  
 Bustrillos, A. D. 7200  
 Butcher, D. F. 4990  
 Butel, J. C. 479  
 Butenko, A. I. 7418, 10762  
 Butenko, R. G. 885, 6300, 6643, 7317  
 Butin, H. 5537  
 Butkene, Z. P. 2527  
 Butkus, V. F. 2527  
 Butkute, B. L. 8241  
 Butler, B. J. 2229  
 Butler, G. D., Jr. 540  
 Butler, J. D. 5166, 6203  
 Butler, L. G. 2096, 5639  
 Butler, L. K. 3737  
 Butnaru, G. 5834, 5846, 5856, 5894, 5986, 6004, 6005, 6046  
 Butnaru, H. 6641  
 Butorina, A. K. 1510  
 Buu, R. H. 8176  
 Buxton, D. R. 1343  
 Buyer, J. de 3937  
 Buyukli, P. I. 10222  
 Buzzell, R. I. 8612  
 Bychek, Ya. K. 7086  
 Bychenko, Z. V. 7049  
 Bychko, E. A. 7422  
 Byczyńska, B. 7485  
 Byers, R. E. 5431  
 Bykova, L. N. 687  
 Bykova, N. B. 788  
 Byrne, D. 4422, 6393, 8329  
 Byth, D. E. 4732, 6777  
 Caballero, J. M. 9896  
 Cabanilla, V. L. 6139  
 Cabral, J. T. 8893  
 Căbulea, I. 1940  
 Čača, Z. 1848  
 Cacco, G. 4034  
 Caddel, J. L. 5223, 10652  
 Cadena-Gómez, G. 10805  
 Caenen, M. 6035  
 Cafati, C. R. 2695, 2696, 11104  
 Cafati K., C. 1574  
 Gagampang, G. B. 9498  
 Gagas, B. 2185  
 Cahaner, A. 3805  
 Cahoon, G. A. 10011  
 Cai, T. 522  
 Cai, T. S. 8839  
 Cai, X. S. 523  
 Cain, D. W. 4532  
 Caldas, L. C. 6623  
 Caldas, R. C. 6470  
 Caldbeck, E. S. 10029  
 Caldicott, J. J. B. 5816  
 Caldwell, R. W. 10492  
 Calhoun, W. 5156  
 Calif, E. 1480  
 Calò, A. 8442  
 Calvert, O. H. 8063  
 Calvez, C. 8420  
 Camargo, C. E. de O. 2959, 7887  
 Camargo, C. E. O. 2959  
 Cambrony, H. R. 9873  
 Camelatto, D. 10857  
 Cameron, A. 6306  
 Cameron, J. W. 1458, 8415, 9133  
 Camilo, A. P. 10857  
 Cammack, F. P. 2934  
 Cammaerts, D. 10076  
 Campagnoli, R. P. 6111  
 Campbell, A. B. 6909, 6910, 6911  
 Campbell, A. I. 1437  
 Campbell, C. L. 10797  
 Campbell, C. W. 5459  
 Campbell, G. K. 200  
 Campbell, J. A. 10321  
 Campbell, K. W. 6079, 7079  
 Campbell, L. C. 6776  
 Campbell, L. D. 1024  
 Campbell, L. G. 1755  
 Campbell, R. B. 1000, 5721, 5723  
 Campbell, T. A. 10738  
 Camper, H. M., Jr. 1142, 1143, 1144, 1145  
 Campos, I. S. 7183  
 Campos P., O. 5253  
 Campos, R. J. 4739  
 Camussi, A. 1997  
 Canaday, J. 3858  
 Cancellier, S. 8442, 10933  
 Candilo, M. di 5627, 7784  
 Cannon, F. C. 9395  
 Cano-Rios, P. 10724  
 Canțar, F. 8981  
 Cantliffe, D. J. 2601, 4040, 7058, 8047  
 Cantrell, M. A. 10695  
 Cantrell, R. P. 4150, 6122, 6129, 7139, 8136, 8880  
 Cao, Z. X. 9251  
 Capineri, R. 4785  
 Capote, A. 9837  
 Capote, E. 7448  
 Cappadocia, M. 4644  
 Caradus, J. R. 8263, 8264  
 Carangal, V. R. 331  
 Carceller, M. 5006  
 Card, L. C. 3748  
 Cárdenas A., M. 5663, 6732  
 Cardini, F. 4514  
 Cardo de Balonga, C. 8203  
 Cardoso, A. A. 942, 5982  
 Cardoso, C. O. N. 3197  
 Cardy, B. J. 8812  
 Carella, A. 4657  
 Carey, E. E. 7077  
 Cargeeg, L. A. 6436  
 Cargnello, G. 4566, 10010  
 Carles, R. J. 91  
 Carlier, L. A. 1246, 7251  
 Carlson, G. E. 4415  
 Carlson, I. T. 3227  
 Carlson, J. 4263  
 Carlson, J. R. 3211, 5189  
 Carlson, P. S. 2341, 5345  
 Carlson, R. E. 972  
 Carlsson, R. 6870  
 Carmelli, D. 3815  
 Carmen, H. 4406  
 Carmichael, E. 742  
 Carmona, M. J. 10327  
 Carmona, P. S. 8888, 8890  
 Carnahan, H. L. 4189, 5117, 5119  
 Carneiro, M. F. N. 6423  
 Carney, H. J. 8969  
 Carr, A. J. H. 5969  
 Carr, B. 6842  
 Carraro, L. 4566, 10010  
 Carreda, S. 2684  
 Carreter, T. L. 9171  
 Carrigan, L. 3004  
 Carrigan, L. L. 2988  
 Carron, R. 1472  
 Carrozza, M. L. 114  
 Carrubba, E. 7615  
 Carter, C. 8562  
 Carter, G. E., Jr. 5445  
 Cartwright, D. W. 6983  
 Cartwright, J. 4999  
 Caruso, P. 10110  
 Carvalho, A. 10801, 10802, 10804  
 Carvalho, E. J. M. 7182  
 Carver, T. L. W. 3126, 5969, 8784  
 Casada, J. H. 615, 1382, 1383  
 Casadoro, G. 8028  
 Casali, V. W. D. 735, 2453  
 Casarini, B. 7784  
 Cascio, B. lo 7030, 7132  
 Casey, C. J. 4097  
 Casey, J. 6834  
 Casey, R. 1601, 5703  
 Cash, J. N. 944, 1541  
 Cash, S. D. 3292  
 Casiero, B. 6851  
 Casler, M. D. 3227, 5197  
 Casper, D. H. 3999, 10387  
 Cassin, J. 724  
 Cassini, R. 614, 6063  
 Castaneda, R. 8879  
 Castano, J. 4224, 10617  
 Castellanos Linares, J. J. 10990, 10991  
 Castilla Chacón, F. 9472  
 Castillo Toro, D. 4212  
 Castro, G. A. de P. 10746  
 Cataneo, A. 3864  
 Cately, T. 8966, 8983  
 Catherall, P. L. 3009, 3131  
 Catling, H. D. 9656  
 Caton, M. P. 427, 9731  
 Cattaneo, M. 1819  
 Caubel, G. 3872  
 Cauderon, Y. 1770, 3900, 8729  
 Cavaleri, P. A. 10705  
 Cavalheiro, A. C. L. 10578  
 Caveness, F. E. 3874  
 Caveness, C. E. 11134  
 Cawthron, D. L. 3603  
 Ceapoiu, N. 5797  
 Ceausu, C. 6906  
 Cebrat, J. 3021, 3022  
 Ceccarelli, S. 4094, 4259, 4260, 5153, 5179, 6085, 7274, 8067  
 Cecchi, V. 2873, 3959  
 Cegielska, T. 7247  
 Çelik, H. 5499  
 Celletier, H. 7286  
 Cellier, K. M. 5488  
 Cenci, C. A. 2194, 5172  
 Cencillo, M. A. 3608  
 Ceng, M. C. 523, 1213  
 Ceoloni, C. 2060, 3959, 7110  
 Cermeño, M. C. 7998  
 Cernat, V. 6474  
 Cernescu, L. 8753  
 Ceron-Diaz, W. A. 6763  
 Ceulemans, E. 3388  
 Cezar, M. S. 10578  
 Chadha, M. L. 4627  
 Chadwick, M. J. 4240  
 Chahva, T. F. 8867, 10548  
 Chaffin, D. 8228  
 Chaghtai, S. A. 1607  
 Chahal, G. S. 2288, 9815  
 Chaiklakhyan, M. Kh. 4399, 6847, 10734  
 Chakhaya, D. M. 2510  
 Chakrabarti, N. K. 1202  
 Chakrabarti, S. N. 144  
 Chakraborty, A. 1223  
 Chakraborty, M. 3445, 7454  
 Chakraborty, R. 4776, 4777  
 Chakraborty, R. C. 4217  
 Chakravarty, D. N. 10473  
 Chakravarty, K. 2320  
 Chakrawar, V. R. 9135



- Chaleff, R. S. 4433, 6152, 11203  
 Chalupka, W. 9193  
 Chalyk, T. S. 4948  
 Chalyuk, N. N. 1312  
 Chaman Singh Tyagi 3136  
 Chamberlain, D. D. 9467  
 Chambers, D. 10750, 10751  
 Chambliss, O. L. 5664, 8592  
 Chami, A. 551  
 Champigny, M.-L. 8874  
 Chamura, S. 5130, 5136, 6155, 10609  
 Chan Nim Kim 3374  
 Chancellor, G. J. 4663, 4676  
 Chand, K. 1857, 3886, 4878  
 Chandel, K. P. S. 8638, 10123, 10838  
 Chandgi Ram 7793  
 Chandlee, J. M. 4977  
 Chandler, C. K. 7533  
 Chandler, D. A. 9923  
 Chandler, D. E. 10336  
 Chandra, A. 2046, 8113, 8854  
 Chandra, N. 7602, 10735  
 Chandra, R. 7329  
 Chandra, S. 7793, 8754  
 Chandrasekaran, S. 2160, 6166  
 Chandrasekhar, K. 3138  
 Chandrasekharaiah, S. C. 9337  
 Chandrasekher, G. 6112  
 Chandrashekar, M. 6577  
 Chandrashekar, N. 1414  
 Chandrika, P. 6733  
 Chandwani, G. H. 1385, 7467  
 Chandy, K. C. 2449  
 Chandylova, L. V. 2742  
 Chaney, R. L. 9315, 9316  
 Chang, C. C. 2897, 5486  
 Chang, C. J. 9136  
 Chang, C. K. 4855  
 Chang, C. L. 8839  
 Chang, C. M. 4990  
 Chang, C. N. 5633  
 Chang, C. P. 723  
 Chang, C. R. 2858, 9906  
 Chang, C. S. 1772, 2714  
 Chang, C. T. 5122  
 Chang, C. Y. 9677  
 Chang, D. Y. 1973, 1989  
 Chang, H. 1772  
 Chang, H. Y. 2107  
 Chang, J. I. 6611  
 Chang, J. S. 1349  
 Chang, K. H. 4208  
 Chang, K. T. 9098  
 Chang, K. Y. 1586  
 Chang, L. C. 6172  
 Chang, L. K. 10026  
 Chang, P. F. 3475  
 Chang, P. Y. 2136  
 Chang, S. D. 3029  
 Chang, S. J. 9099  
 Chang, S. K. 6175  
 Chang, T. L. 2782  
 Chang, T. M. 8175  
 Chang, T. T. 343, 345, 3164, 4192, 5092, 6147, 6161  
 Chang, T. Y. 9040, 9042  
 Chang, W. C. 663, 5756, 5757, 5758, 5759, 5760  
 Chang, W. L. 396, 2148, 6173  
 Chang, W. N. 1672, 2602  
 Chang, Y. L. 2136, 4196, 9098  
 Chankotadze, I. S. 2546, 2554  
 Channakrishnaiah, K. M. 10113  
 Chanukvadze, A. Sh. 9953  
 Chanukvadze, S. A. 725  
 Chao, C. T. 5370  
 Chao, C. Y. 2198  
 Chao, H. Y. 723  
 Chao, M. J. 5126  
 Chapau, A. 7383  
 Chaplin, J. F. 597, 622, 2365, 2371, 2372, 2380, 3435, 3446, 5339, 5350, 7459, 7460  
 Chapman, G. P. 2676  
 Chapman, M. S. 5360  
 Chapman, R. K. 5551  
 Chapman, V. 5974, 8725, 9389  
 Chapurin, V. F. 452  
 Charbonnier, M. 9561, 9591  
 Charlesworth, B. 2, 2779, 5750  
 Charlesworth, D. 2, 998, 2779, 5750, 6846  
 Charlton, L. 3376  
 Charrier, A. 9047  
 Chase, D. L. 3745  
 Chase, R. W. 8289  
 Chatel, M. 1139, 7184, 10616  
 Chatenet, M. 570  
 Chatterjee, A. 10739  
 Chatterjee, B. N. 2163, 11127  
 Chatterjee, S. C. 8707, 8762, 8765, 8769  
 Chatterjee, S. D. 4217  
 Chatterjee, S. K. 736  
 Chatterji, A. K. 2070, 10564  
 Chattopadhyay, S. B. 2106, 6179  
 Chattopadhyay, T. K. 2323  
 Chaturvedi, D. P. 2172  
 Chaturvedi, G. S. 1753  
 Chaturvedi, H. C. 7818  
 Chaturvedi, S. N. 4703, 11116  
 Chaubey, C. N. 3452, 4461  
 Chaudhari, L. B. 327  
 Chaudhari, P. N. 2408, 8365  
 Chaudhari, V. P. 2426, 9015, 10187  
 Chaudhary, B. D. 929, 994, 1576, 4079, 10680  
 Chaudhary, B. S. 2886, 6934  
 Chaudhary, H. R. 5038  
 Chaudhary, M. S. 2072, 7793  
 Chaudhary, R. C. 1211, 1217, 2166  
 Chaudhry, F. I. 9810  
 Chaudhry, M. B. 7367, 7368  
 Chaudhry Nazeer Ahmed 7386  
 Chaudhuri, D. 373  
 Chauhan, B. P. S. 3146, 3377, 3741, 8857, 8875, 9010, 9011  
 Chauhan, J. S. 3618  
 Chauhan, K. P. S. 1879  
 Chauhan, K. S. 9149, 10012  
 Chauhan, L. S. 9073  
 Chauhan, M. S. 6671, 8319  
 Chauhan, S. K. 8380  
 Chauhan, S. V. S. 1015, 2035, 2598, 5031, 6849, 8668, 9064, 9091  
 Chauhan, Y. S. 1422, 4459  
 Chaurasia, B. D. 7483  
 Chaurasia, L. C. 6831  
 Chauvet, M. 8417  
 Chavan, A. P. 6128  
 Chavan, G. V. 6441  
 Chavan, J. K. 8135  
 Chaves, J. B. P. 656  
 Cheah, C. H. 2109  
 Cheban, G. F. 153, 10278  
 Chebanenko, E. P. 9167  
 Chebotar, A. A. 127  
 Chechuev, N. F. 2630  
 Chee, K. H. 3493, 4500  
 Cheema, H. S. 8594, 11117  
 Cheema, S. S. 2505  
 Chei, L. C. 1231  
 Chekalin, S. N. 7845  
 Chekurov, V. M. 2963, 4903  
 Chelak, V. R. 119, 127, 6966  
 Cheliak, W. M. 6572  
 Chemarin, N. G. 6540  
 Chen, B. W. 5629  
 Chen, B. Y. 2146  
 Chen, C. 1958, 2006, 2007, 3981, 4436  
 Chen, C. C. 2147, 2175, 4196, 8165, 8218, 10034  
 Chen, C. H. 9099  
 Chen, C. K. 4536  
 Chen, C. L. 5764  
 Chen, C. M. 2147, 8165  
 Chen, C. S. 6169  
 Chen, C. T. 572, 9026  
 Chen, C. Y. 5606  
 Chen, F. K. 1231  
 Chen, F. T. 9099  
 Chen, G. L. 2782  
 Chen, G. M. 1184  
 Chen, H. 1703  
 Chen, H. H. 506, 7334  
 Chen, H. L. 4361  
 Chen, H. S. 2932  
 Chen, J. 278  
 Chen, J. B. 9022  
 Chen, J. Q. 4196  
 Chen, J. Y. 1703, 1704, 4003  
 Chen, K. 1381, 4380, 7443  
 Chen, K. L. 2782  
 Chen, K. M. 1184, 2076  
 Chen, L. 4044  
 Chen, L. C. 2148  
 Chen, M. L. 8813  
 Chen, P. Y. 2146  
 Chen, R. Y. 1703, 1704, 4003  
 Chen, S. B. 4195  
 Chen, S. P. 4195  
 Chen, S. Y. 2361, 4435, 5347  
 Chen, W. C. 4987  
 Chen, W. H. 7413  
 Chen, W. S. 2333  
 Chen, X. 1703  
 Chen, X. S. 2932  
 Chen, Y. 4208, 8697  
 Chen, Y. J. 3930  
 Chen, Y. R. 2597, 3930  
 Chen, Z. D. 572  
 Chen, Z. E. 7622  
 Chen, Z. G. 4536  
 Cheng, A. 6412  
 Cheng, A. H. 9249  
 Cheng, B. Y. 2146  
 Cheng, C. C. 9677  
 Cheng, C. H. 396  
 Cheng, C. K. 9097  
 Cheng, C. Y. 1794  
 Cheng, J. Y. 1794  
 Cheng, K. C. 3015  
 Cheng, M. 2136  
 Cheng, P. C. 1131  
 Cheng, S. S. 11097, 11099  
 Cheng, S. W. 4208  
 Cheng, T. C. 522, 7364  
 Cheng, T. Y. 1585  
 Cheng, W. C. 8814  
 Cheng, Y. G. 3180  
 Cheng, Y. K. 3180, 8174  
 Chenulu, V. V. 9307  
 Cheo, M. 1107  
 Chepel', A. G. 1964  
 Cheremisina, E. D. 10998  
 Cherepnin, V. L. 3637  
 Cherepukhin, E. I. 576  
 Cherevko, S. P. 10223  
 Cherkasov, A. F. 3594  
 Chernen'kaya, R. F. 9327  
 Chernikova, M. F. 8979  
 Chernisheva, S. V. 7953  
 Chernou, U. P. 2024  
 Chernousova, R. A. 3328  
 Chernov, V. P. 2024  
 Chernysheva, N. F. 1685  
 Chernysheva, S. V. 7953  
 Cherry, M. 1686  
 Chery, J. 1038  
 Cherventseva, M. I. 10818  
 Chesnokova, V. V. 5027, 7090  
 Chetverikov, A. G. 10452  
 Chetvertnykh, L. M. 2243  
 Chevalier, M. M. 3044  
 Chevassus Agnes, S. 9648  
 Chevaugon, J. 1322  
 Chew, E. Y. 3401  
 Chew, H. J. 5696  
 Chew, V. 4805  
 Chew, W. Y. 5696  
 Cheyne, V. A. 1258  
 Chhabra, K. L. 6371  
 Chhipa, H. P. 7495  
 Chhonkar, V. S. 875, 4401  
 Chi, H. C. 5280  
 Chi, J. C. 3368  
 Chi, N. C. 8904  
 Chi, P. K. 2099  
 Chia, H. 2937, 8743  
 Chia, S. K. 2937  
 Chiang, B. Y. 5585  
 Chiang, C. C. 3907  
 Chiang, H. S. 6748  
 Chiang, H. T. 4043  
 Chiang, J. C. 3346  
 Chiang, M. S. 2611, 5566, 5585, 7070, 7673  
 Chiang, Y. C. 366, 367  
 Chiang, Y. H. 723  
 Chiba, I. 6741  
 Chiba, O. 7650  
 Chidambaram, A. 7573  
 Chien, C. F. 9099  
 Chien, L. C. 1844  
 Chien, M. M. 1798  
 Chien, S. Y. 9000  
 Ch'ien, Y. C. 8910  
 Chigrin, V. V. 2817  
 Chikkadevaiah 950, 2760, 2761, 10113  
 Chiko, A. W. 4103  
 Chilcote, D. O. 8242, 8243  
 Childers, N. F. 702, 6501  
 Childers, W. R. 4294, 7241  
 Chilikina, L. A. 5898, 10332  
 Chilton, M.-D. 5788  
 Chimirov, V. Yu. 794  
 Chin, J. C. 8698  
 China, Breeding Laboratory, Tobacco Institute 3434  
 China, Cooperative Research Group on Anther Culture and Haploid Breeding, Kwangsi Chuang Autonomous Region 9680  
 China, Department of Horticulture, Chekiang Agricultural University 3536  
 China, Ecology Laboratory and Institute of Cereal Crops, Kwangtung Academy of Agriculture 9679  
 China, Heilungkiang Academy of Agricultural Science 9675  
 China, Institute of Botany, Academia Sinica 9675  
 China, Kuangtung Cooperative Investigation Group for the Utilization of Heterosis in Crops, South China Agricultural College 2135  
 China, Laboratory of Crop Ecological Genetics, Agronomy Department, South China Agricultural College 4202  
 China, Research Group of Haploid Breeding, Institute of Vegetables, Chinese Academy of Agricultural Sciences 9284  
 China, Research Group of Plant Morphology, Kiangsu Botanical Institute 9031  
 China, Research Laboratory of Breeding, Institute of Tobacco Research, Chinese Academy of Agricultural Sciences 9037  
 China, Somatic Hybridization Research Group, Peking Institute of Botany 1010  
 China, Sunghuakiang Prefectural Experimental Station of Rice 9675  
 China, Vegetable Crops Division, Horticulture and Forestry Department, Shenyang Agricultural College 3680  
 China, Vegetable Institute, Peking Academy of Agriculture 1562  
 Chinchani, G. S. 7603  
 Chinchev, B. 6397  
 Ching, C. K. 2937, 8743  
 Chinn, S. H. F. 5887  
 Chino, M. 9269  
 Chinoy, J. J. 5074  
 Chirilă, R. 1549  
 Chirkova, V. A. 8788  
 Chiru, C. 5634  
 Chistyakova, V. N. 2926  
 Chitkara, S. D. 2498, 4531, 9125  
 Chiu, C. S. 723



- Chiykowski, L. N. 9511  
 Chkhikvishvili, I. D. 9963  
 Chkhutiashvili, G. A. 5653  
 Chloupek, O. 1281, 2215, 5220  
 Chmeleva, Z. V. 7904, 7943  
 Cho, B. H. 3477  
 Cho, C. H. 2853, 2900, 2940, 3093, 3094, 3113  
 Cho, C. I. 350  
 Cho, D. S. 1220  
 Cho, J. H. 635  
 Cho, M. D. 2497  
 Cho, S. Y. 350  
 Chobanov, Ja. 3441  
 Chobanova, Ya. 3441  
 Choda, S. P. 6240  
 Choe, B. H. 3757  
 Choe, Z. R. 1226  
 Choi, C. I. 3699  
 Choi, H. C. 4538  
 Choi, H. O. 241, 242, 351, 1121, 1579, 3746  
 Choi, K. S. 3699  
 Choi, S. J. 590, 3181, 3184  
 Choi, S. Y. 389, 393, 1238, 1239  
 Chojnacka, W. 4944  
 Cholakhyan, D. P. 697  
 Chollet, R. 423  
 Chombhubol, M. 1208  
 Chomchalow, N. 8629  
 Chong, C. 3305, 6281  
 Choniem, H. G. 6420  
 Choo, T. M. 6068, 6069, 6826, 7806  
 Chopde, P. R. 4760, 5860, 6441, 6817, 10187  
 Chopra, V. L. 7874, 7966  
 Chou, C. 3105, 4206, 9677  
 Chou, C. H. 3907, 3933  
 Chou, C. Y. 5122, 9470  
 Chou, H. C. 1703  
 Chou, K. T. 8911  
 Chou, K. Y. 4193, 4194, 9000  
 Chou, M. T. 1107  
 Chou, P. C. 5122  
 Chou, S. C. 4855  
 Chou, S. M. 2937, 8743  
 Chou, T. S. 4969, 8033  
 Chou, T. T. 2932  
 Chou, Y. L. 8910  
 Choudhari, K. G. 3572  
 Choudhari, S. D. 10587  
 Choudhary, B. O. 9699  
 Choudhary, D. K. 1389, 3484, 6461  
 Choudhary, L. B. 9628  
 Choudhry, M. A. 1890, 7869  
 Choudhury, M. M. 7152, 7153  
 Choudhury, N. H. 4212, 7196  
 Chourey, P. S. 4978, 8025  
 Chow, J. Y. 5122  
 Chow, P. C. 5122  
 Chow, S. I. 2897  
 Chowdhury, H. D. 9006  
 Chowdhury, J. B. 4660  
 Chowdhury, M. K. 8196  
 Christ, B. J. 11105  
 Christakis, P. A. 10085  
 Christen, A. A. 6252  
 Christensen, P. J. 8130  
 Christiansen, F. B. 2775  
 Christie, B. R. 433, 4289, 6207, 6208, 6245  
 Christophe, C. 7654  
 Christopher, D. A. 8530  
 Chróścicki, K. 1439  
 Chrzanowska, M. 519  
 Chu, C. 2911  
 Chu, C. C. 1113, 1802, 2816, 3988, 8695, 9673, 9678, 9855  
 Chu, C. H. 522, 7364  
 Chu, C. Y. 4044  
 Chu, T. M. 3760, 9686  
 Chu, W. H. 9098  
 Chu, Y. E. 356, 6146  
 Chuang, C. C. 2937, 8743, 9671  
 Chubanov, K. D. 8466  
 Chubykin, V. L. 3821  
 Chudnyi, A. V. 9197  
 Chuiko, N. M. 2519  
 Chumak, M. V. 252, 9538  
 Chumakov, A. E. 1176  
 Chun, P. Y. 9674  
 Chundawat, B. S. 5497  
 Chundurwar, R. D. 6131  
 Chung, B. J. 385  
 Chung, C. H. 2612  
 Chung, G. S. 351, 7210, 8915  
 Chung, K. H. 181  
 Chung, K. W. 3746  
 Chung, O. K. 1095  
 Chung, S. J. 3093  
 Chung, T. A. 4538  
 Chung, T. Y. 3093, 3094, 6174  
 Chung, Y. H. 7435  
 Chuong, P. V. 2141  
 Chuprina, L. M. 3562  
 Chuprina, Z. V. 7238  
 Chuptsova, O. E. 1906  
 Chuquillanqui, C. 6340  
 Chuvaeva, A. D. 1689  
 Chuvashina, N. P. 747  
 Chyau, A. 954  
 Cia, E. 10705, 10723  
 Ciaccio, C. 10324  
 Ciafardini, G. 3765  
 Ciampi, L. 7336, 9791  
 Ciampolini, F. 3715, 5440  
 Ciano, S. R. de 4733, 4734, 5674, 5682  
 Ciano, S. R. R. V. de 4733  
 Ciaramello, D. 10744  
 Cibulsky, R. J. 2477  
 Ciccarese, F. 8560  
 Cidraes, A. G. 10281, 10282, 10523  
 Ciecko, Z. 8291, 8292  
 Cifuentes, I. O. 6370  
 Ciha, A. J. 190, 7950  
 Ciocca, L. 1816  
 Ciresa, V. 8407  
 Ciricifolo, E. 5808  
 Cirkova, M. 11054  
 Cirulli, M. 8560  
 Cisar, G. 2989  
 Cisar, G. L. 3991  
 Civerolo, E. L. 3604  
 Clabault, G. 9558  
 Claridge, M. F. 3200  
 Clark, C. 8299  
 Clark, D. J. 6284  
 Clark, F. 621  
 Clark, K. W. 4682, 7870, 10623  
 Clark, L. 10922  
 Clark, L. E. 7150, 8306  
 Clark, R. V. 5968  
 Clarke, E. M. W. 946  
 Clarke, J. M. 3929  
 Clarke, P. A. 6851  
 Classen, A. P. 7439  
 Clausen, K. 10239, 10240, 10241  
 Clausen, K. E. 1504, 9184  
 Clauss, E. 2889, 4087, 7089  
 Claydon, A. 8637  
 Clegg, M. T. 5064  
 Clements, R. O. 6223, 6259  
 Clerc, M. 1251  
 Clerjeau, M. 4598, 8500  
 Clifford, B. C. 5059  
 Clifford, P. T. P. 2234  
 Cloutier, Y. 6975  
 Coakley, S. M. 10382  
 Cobâlas, B. A. 1549  
 Cobb, A. C. 4624  
 Cobbs, G. 1614  
 Cobbs, G. A. 1615  
 Cobianchi, D. 3521, 6477, 7564, 8403  
 Coburn, T. C. 5803  
 Cocci, V. 1429, 1436, 3512  
 Cock, A. G. 1002  
 Cock, J. H. 2352, 2357, 2358, 7428  
 Cockerham, C. C. 3, 5728  
 Cocking, E. C. 1673, 1674, 2220, 8660, 9392  
 Cocks, P. S. 5232  
 Coe, E. H. 6036, 10434, 10466, 10467  
 Coe, E. H., Jr. 3030, 6000, 6001, 7034, 9539  
 Coelho, D. T. 654, 655, 656, 2453  
 Coffelt, T. A. 3482, 9900  
 Coffey, D. L. 2627, 11040  
 Coffey, M. D. 4355  
 Coffman, W. R. 3161, 5114, 6139, 6160, 6190, 8173  
 Cohen, B. M. 5735  
 Cohen, C. J. 8242  
 Cohen, J. I. 9544  
 Cohen, S. 10083  
 Cohn, M. A. 2002, 9587  
 Cojocar, C. 6100  
 Colaprico, G. 7930  
 Colbert, T. R. 6025  
 Cole, C. S. 4350  
 Cole, D. F. 6386  
 Cole, H., Jr. 4285, 7342  
 Cole, R. H. 8278, 8973  
 Coleman, J. R. 432  
 Coleman, P. C. 5178  
 Coles, G. 3122  
 Collaud, J.-F. 237, 1111, 3092, 5960, 6880  
 Collin, H. A. 3692  
 Collins, F. C. 1053, 5931  
 Collins, G. B. 583, 588, 591, 596, 2370, 3282, 3283, 3422, 4431, 5230, 6262, 6405, 6416, 6417, 6418, 7455, 7458  
 Collins, M. J. 5246  
 Collins, W. J. 6266, 6267  
 Collins, W. W. 5275, 7365  
 Colombia, Centro Internacional de Agricultura Tropical 9366, 10098  
 Coly, A. 3192, 10605  
 Comarovschi, G. 8981  
 Comeau, A. 10412  
 Comings, D. E. 10049  
 Company, M. 7507  
 Compton, W. A. 3034  
 Comstock, M. 6590  
 Comstock, R. E. 5727  
 Condé, A. R. 735  
 Conde, J. 8122  
 Conde, M. F. 250, 1975, 1976, 8026, 8027, 8043  
 Conger, B. V. 1244  
 Congleton, W. F. 7447  
 Connelly, J. A. 8043  
 Conner, R. L. 11087  
 Connolly, V. 462, 5231  
 Connor, H. E. 10626  
 Connor, J. C. 11065  
 Conover, R. A. 5463  
 Conrad, N. G. 2500  
 Considine, J. A. 10267  
 Constabel, F. 7039, 7484  
 Constable, G. A. 6775  
 Constantin, R. J. 5507, 8299  
 Constantinescu, G. 772  
 Contreras G., J. 3398  
 Contreras Lopez, J. 7721  
 Conus, M. 9094, 9909  
 Converse, R. H. 10925  
 Cook, F. D. 2228, 5241  
 Cook, F. I. 2637  
 Cook, M. 4488, 4489  
 Cook, R. J. 6978  
 Cooke, B. M. 7112  
 Cools, M. H. 7697  
 Cooper, J. P. 9379  
 Cooper, R. L. 7762, 11143  
 Copley, R. H. V. 9074  
 Corazza, L. 3959  
 Corbellini, M. 1741, 2915  
 Corbet, S. A. 5485  
 Corbett, M. K. 3447  
 Corbin, F. T. 11119  
 Corbin, T. C. 4437  
 Corcuera, L. J. 6987  
 Cordeiro, D. S. 10568  
 Cordeiro, G. L. 10523  
 Cordeiro, H. M. 1096  
 Cordell, C. E. 3644  
 Corden, M. E. 5632, 11060  
 Cordo de Balonga, C. 8204  
 Cordoba, J. V. 11106  
 Cordonnier, R. 4571  
 Cordrey, T. D. 9987, 11040  
 Cordukes, W. E. 2191  
 Corfield, K. G. 5901  
 Corgan, J. N. 8512  
 Corley, R. H. V. 9895  
 Corneil, J. A. 9170  
 Cornelius, M. J. 6222  
 Cornelius, P. L. 5227, 6032  
 Cornet, D. 8582  
 Cornish, M. A. 5185  
 Cornu, A. 614, 4444, 6063  
 Coronel, V. 10613  
 Corputty, C. P. 9977  
 Correa, J. R. V. 7182  
 Correa N., J. T. 5363  
 Correia, E. de B. 7752  
 Cortázar Sagarmínaga, R. 1098, 2872, 4891  
 Cortés, F. 2784  
 Cortes, P. M. 5794  
 Corti, C. 7711  
 Cosmin, O. 5987  
 Costa, C. P. da 4609, 7660  
 Costa Rica, Ministerio de Agricultura y Ganadería 4792  
 Costacurta, A. 3609, 8442, 10933  
 Costanza, S. H. 4269  
 Coste, R. 627  
 Coudriet, D. L. 7682  
 Coulombe, L. J. 920  
 Coulthart, M. B. 3672  
 Coumans, M. 3388  
 Cours, B. J. 1533  
 Court de Billot, M. R. le 3055  
 Cousson, A. 6409  
 Couture, L. 1904  
 Covarelli, G. 1554  
 Cowley, C. R. 4900  
 Cown, D. J. 7652  
 Cox, C. R. 5492  
 Cox, D. F. 2898  
 Cox, R. M. 4246  
 Coxon, D. T. 2266, 3332  
 Coyne, D. P. 4814, 5652, 9216  
 Cozens, K. 7062  
 Craddock, J. C. 3089  
 Craig, A. S. 474  
 Craig, E. A. 6435  
 Craig, I. L. 8070, 8071  
 Craig, J. 4166  
 Crall, J. M. 4628  
 Crandall, P. C. 9980  
 Crane, J. C. 5511  
 Crassweller, R. M. 4513  
 Crawford, E. J. 4278  
 Creelman, R. A. 8879  
 Creighton, C. S. 7672  
 Cremaschi, D. 1311  
 Cremescu, G. 6906  
 Cremonini, R. 114  
 Cress, C. E. 5853  
 Cress, D. E. 1583  
 Cresti, M. 3715, 5440  
 Crête, R. 2611, 5566, 5585, 7673  
 Crețu, M. 8753  
 Crill, J. P. 3196  
 Crill, P. 4226, 9257  
 Crisafulli, A. 6477  
 Crisp, P. 1519, 1529, 2613, 2614, 3681  
 Critchfield, W. B. 9192  
 Crocker, T. E. 1441  
 Crockett, R. P. 1140  
 Crofts, H. J. 6684  
 Cronin, D. A. 494  
 Crookston, R. K. 1140  
 Cros, D. L. du 76  
 Cros, E. T. du 8465  
 Crosbie, T. M. 1998, 2000, 4062, 8014, 10476  
 Crosby, K. E. 2724  
 Cross, H. Z. 1936, 3025, 3026, 3053, 4946  
 Cross, R. J. 1734, 2874, 2875, 2957, 3091  
 Crosse, J. E. 6508  
 Crosta, G. 1738  
 Crosthwaite, L. 612  
 Croughan, T. P. 5790  
 Crouse, E. J. 3858  
 Crow, J. F. 2838  
 Crowle, W. L. 5903



- Crush, J. R. 8264  
Crute, I. R. 1546, 3690, 6627, 6628  
Cruz, E. A. 5204  
Cruz, E. J. 5656  
Cruz, N. M. de la 6159  
Csázár, J. 1065  
Cseresnyes, Z. 638  
Csinos, A. 616  
Csinos, A. S. 619, 4446, 4486  
Cuany, R. L. 7037  
Cubero, J. I. 2666, 2682, 3898, 6695  
Cubero Salmerón, J. I. 3898  
Cubillos, A. G. 6301  
Cubitt, I. R. 6936  
Cuesta, D. de la 10770  
Cuevas, J. 9142  
Cuevas-Perez, F. 9439  
Cui, L. Q. 1231  
Cullen, D. 10492  
Cullis, C. A. 3376  
Culp, T. W. 1334, 1336, 1337  
Cummins, J. N. 1430, 1432, 5431, 10865  
Cunfer, B. M. 5842  
Cunningham, G. A. 6875  
Cunningham, M. 9175  
Cunningham, P. C. 2861, 4827, 5818  
Cuozzo, L. 10296  
Čuperlović, M. 2951  
Čupina, T. 170  
Currah, L. 4606  
Curzel, G. 3520  
Curzel, G. C. 6477  
Custers, J. B. M. 8533  
Cuthbert, F. P., Jr. 5244  
Cutler, J. M. 3193  
Cvetkov, S. M. 5942  
Cyr, C. L. 1496  
Czaplińska, S. 8064  
Czarnecki, E. M. 6910, 6911  
Czechoslovakia, Československá akademía poľnohospodárska 1255  
Czembor, H. 1169  
Czembor, H. J. 3111, 7115  
Czochor, R. J. 1692  
Dabas, B. S. 7309, 11109  
Dabholkar, A. R. 10582  
Dabi, R. K. 2711  
Dąbrowska, A. 2723, 11138, 11139  
Dadarwal, K. R. 4678  
Daday, H. 1267  
Daehnhardt, E. 6422  
D'Agostino, S. 7615  
Dahiya, B. N. 2992  
Dahiya, R. S. 8561  
Dahlan, M. M. 4036  
Dähne, D. 3551, 9123  
Dai, J. X. 4771  
Dai, L. F. 4195  
Dai, W. P. 2612  
Dai, Y. R. 4209, 5126  
Dalal, M. A. 6749  
Dalaly, B. K. 5044  
Dalaya, V. P. 9835  
Dalbar Singh 10682  
Dalbir Singh 1521  
Dale, A. 741, 9978, 9983  
Dale, J. L. 1118, 5017  
Dale, P. J. 1258, 3224  
Dalli, A. 1737, 3896  
Dalmacio, S. C. 6058, 7171, 7178  
Dalmir Singh 5845, 7895, 7896, 8736  
Dalrymple, D. G. 6877  
Dalrymple, R. L. 8244  
Dalvir Singh 3112  
Daly, J. M. 2818, 7463  
Daly, P. 10056  
Dam, R. van 7669  
Damania, A. B. 7129, 7843  
Damanskaya, M. K. 9215  
D'Amato, F. 4857  
Damato, G. 2672, 2673  
D'Amato, G. 4785  
D'Ambra, V. 3395  
Dambroth, M. 1662  
Damiani, F. 4259, 4260  
Damiano, C. 6477  
Daminati, M. G. 8029  
Damirgi, S. M. 2228  
Damon, R. A., Jr. 8388  
Damsteegt, V. D. 10512  
Dana, M. N. 7590  
Dana, S. 7757, 11115  
Danakusuma, T. 1763  
Danchenko, A. M. 5525, 5526  
Dančik, J. 4277  
Dane, F. 2635  
Daneschwar, M. 1097  
Daneva, N. 6529  
Dange, S. R. S. 10498  
Dangi, O. P. 4131, 4132, 4134, 7143, 8883  
Dani, R. G. 2757  
Daniel, P. 431  
Danieljan, A. C. 3426  
Danielyan, A. Kh. 697, 3426  
Danilenko, V. V. 9950  
Danilin, M. A. 3626  
Danilin, V. V. 6489  
Dankittipakul, N. 6811  
Danko, S. J. 11060  
D'Appolonia, B. L. 1093, 10324  
Dar, M. A. 7125  
Darbyshire, B. 2600  
Darlewski, M. 8003, 8789  
Darlington, C. D. 9376  
Darmodjo, S. 3385  
Darozhkin, M. A. 9109, 11033  
Darrah, L. L. 4073, 6025, 7074, 10508  
Darsow, U. 7341  
Darvey, N. L. 1878  
Das, A. K. 625, 8961, 8962  
Das, A. P. 2070  
Das, B. L. 9189  
Das, D. 10893  
Das Gupta, D. K. 373  
Das, K. 4455  
Das, L. D. V. 6434  
Das, N. D. 7757, 11115  
Das, P. K. 990, 9667, 11114  
Das, R. K. 7527  
Das, S. R. 5131  
Das, T. 8196  
Dasgupta, D. R. 7722  
Dashevskii, I. N. 9421  
Daskaloff, S. 10841  
Daskalov, H. 10078  
Daskalov, Kh. 10078  
Daskalov, S. 8377, 10841  
Dass, S. 324  
Datar, V. V. 10016  
Datta, S. K. 5096  
Dattée, Y. 448  
Daub, M. E. 4691, 10111  
Daubeny, H. A. 4543, 4547, 4555, 9989, 10898, 10902  
Daubeze, A.-M. 9910  
Daulta, B. S. 10000, 10012  
Daussant, J. 4942  
Dauth, C. 9918, 10846  
Dávalos, E. D. 8717, 10280  
Davey, M. R. 1673, 2220  
DaVia, D. J. 10827  
David, S. B. 7603  
Davide, R. G. 4557  
Davidovski, E. 2810  
Davidson, J. G. N. 8124  
Davies, D. R. 6781, 9391  
Davies, F. S. 6532  
Davies, H. 8262  
Davies, H. T. 6292  
Davies, J. C. 8150  
Davies, W. E. 7280, 7295  
Davis, D. D. 9807, 10724  
Davis, D. G. 7441  
Davis, D. L. 596, 597, 4431, 7455  
Davis, D. W. 7076, 8065, 8537, 11183  
Davis, F. M. 2831, 3083, 10422  
Davis, G. L. 10231  
Davis, J. R. 6219  
Davis, K. S. 7508  
Davis, L. C. 6763  
Davis, M. L. 10032  
Davis, P. L. 6638  
Davis, R. 4366  
Davis, T. 2410  
Davis, T. A. 3583, 9977  
Davoyan, E. I. 2127  
Davydov, S. E. 1726, 1813  
Dawari, N. H. 4847  
Dawe, J. C. 10688  
Dawidowski, J. 2810  
Daxenbichler, M. E. 5582, 5583  
Day, J. M. 6719  
Day, K. L. 6091  
Day, P. R. 2820  
Dayal, K. 7559  
D'Cruz, R. 2747, 8650, 11191  
De Datta, S. K. 5113  
Deakin, J. R. 5648  
Deal, C. L. 6363  
Dean, C. E. 621  
Dean, H. A. 8416  
Dean, J. G., Jr. 5156  
Dean, J. L. 5317  
Dean, J. R. 4682  
Dearborn, C. H. 6295  
Deaton, W. R. 3423  
Deb, S. P. 380  
Debelyi, G. A. 3290, 3293  
DeBonte, L. R. 2647, 8164  
Debouck, D. G. 6702  
Decau, J. 1721  
Dechanet, R. 7184, 10616  
Decker, A. M. 9315, 9316  
Dedić, P. 2279, 7791  
Dedio, W. 1410, 4471, 6442  
Dedovskii, F. P. 5518  
Deethardt, D. E. 10338  
Deeva, V. P. 8841  
D'Egidio, M. G. 1816, 2946  
Dehne, J. 75  
DeJong, D. W. 597, 3429, 3430, 5350, 7445  
DeJong, T. M. 3236, 10176  
Deka, P. C. 7191  
Dekapreleevich, L. L. 1824  
Dekhujzen, H. M. 3306, 3307  
Decker, P. H. M. 4680  
Delecolle, R. 1075  
Delevoryas, T. 5744  
Delgado B., T. E. 3397  
Delgado S., A. 6718  
Delli, T. R. 803  
Della Strada, G. 3508, 5450  
Dellaert, L. M. W. 1020  
Delogu, G. 2057  
Delon, R. 9858, 9859  
Delone, N. L. 3819  
Delort-Laval, J. 6676  
Delp, B. R. 7595  
Delwiche, P. A. 633, 3677, 5580  
Demarly, Y. 1619, 2830  
DeMason, D. A. 4542  
DeMenezes, E. M. 432  
Dement'eva, S. P. 10082  
Demetradze, T. Ya. 720, 1486, 3571  
Demidkin, I. N. 8751  
Demidko, Ya. D. 501  
Demidova, E. G. 1813  
Demina, R. B. 1567  
Demopulos-Rodriguez, J. 8799  
Dempsey, E. 4960, 10429, 10430  
Demuth, P. 6493  
Dem'yanova, E. I. 9341  
Denford, K. E. 3672  
Deng, Z. F. 2446  
Dengel, H.-J. 3417  
Denić, M. 3047  
Denis, J.-B. 295, 8121  
Denis, J. C. 4162  
Denisenko, G. A. 2183  
Denison, W. C. 10925  
Denisov, N. I. 9158  
Denisov, V. 8456  
Denisova, E. S. 3995  
Denisova, F. N. 3619  
Denisyuk, O. L. 2486  
Denman, C. E. 5803  
Denmark, Landbrugets Kornforædling 10239  
Denmark, Landsudvalget for Planteavl 3840, 3841  
Denna, D. W. 2635  
Dennis, C. 7841  
Dennis, E. S. 5806, 10243, 10261  
Denton, L. 2594  
Deokar, A. B. 2408, 2425, 8364, 8650, 10186, 11191  
Depicker, A. 2777  
D'Ercole, N. 8433, 8560  
Derevyanko, V. P. 7018  
Derezhitskaya, L. V. 4724, 5686  
Dergach, G. V. 5288  
Dervin, C. 295  
Desai, B. B. 7208  
Desai, D. T. 4153  
Desai, G. S. 5390  
Desai, K. B. 3137, 3148, 4117, 4118, 4139, 4153, 4181, 5067  
Desai, S. A. 2427  
Desai, S. N. 2078  
Desale, J. S. 9664  
Desale, S. C. 2437, 8372, 9077  
Desborough, S. L. 8282  
Deshamane, N. B. 6128, 7167, 7168, 7169  
Deshmukh, N. Y. 2101, 2704  
Deshmukh, P. D. 2173  
Deshmukh, P. S. 7397  
Deshmukh, R. B. 4468, 6747  
Deshmukh, S. D. 637, 3474  
Deshpande, A. A. 1551, 3704, 5615, 5616  
Deshpande, K. B. 10016  
Deshpande, L. A. 10713  
Deshpande, N. V. 2285  
Deshpande, V. P. 6132  
Desiderio, E. 1972, 1999  
Deslauriers, C. 3996  
Despradel, J. O. 10747  
Desprez, M. 10760  
Dessauer, D. W. 6738  
Dev, G. 9459  
Dev Raj Sood 11158  
Devadath, S. 4218, 6177, 9700, 9701, 9702  
Devar, K. V. 5635  
Devendra, R. 3182  
Deverall, B. J. 200, 2971  
Deveronico, L. 8391  
Devinder Kumar Mehan 2400  
Devine, T. E. 970, 3759, 5693, 5694, 6766, 11162  
Devkovskaya, O. A. 4851  
Devreux, M. 3708  
Devyatova, V. F. 5555, 5556  
Dewan, B. A. 5100, 7179  
DeWet, J. M. J. 6833  
Dewey, D. R. 3230, 3232, 4271, 7268, 7269, 7853  
Dewey, W. G. 1835, 10288  
Dexter, J. E. 3941, 3947, 3948, 5893  
Dhage, H. Y. 7142  
Dhaliwal, A. 2401  
Dhaliwal, G. S. 8213  
Dhaliwal, H. S. 253  
Dhall, S. P. 1503  
Dhanasobhon, C. 191, 9465  
Dhandar, D. G. 7530  
Dhani Ram 7895  
Dhanju, M. S. 648, 2662, 6116, 8093  
Dhankhar, B. S. 929, 4660, 6369, 8319, 9336, 10741  
Dharampal Singh 3788, 4459, 6790  
D'Harlingue, A. 8699  
Dharmawansa, E. M. P. 8633  
Dharmegowda, M. V. 927, 1563, 6669  
Dhawan, A. K. 9008  
Dhawan, S. 1405  
Dhesi, N. S. 8812  
Dhillon, B. S. 1981, 1995, 3071, 8050  
Dhiman, S. D. 4867  
Dhindsa, G. S. 1881  
Dhindsa, K. S. 3112, 11158  
Dhindsa, R. S. 7192  
Dhingra, O. D. 3769, 4740  
Dhoble, S. Y. 2420



- Dhonukshe, B. L. 3902  
 Dhopte, A. M. 2308  
 Dhumale, D. B. 5965  
 Diachun, S. 2632, 8692  
 Dial, S. 6586  
 Diallo, A. U. 1963, 1964  
 Diallo, I. 3447  
 Diasamidze, Sh. 4505  
 Díaz A., C. 256  
 Díaz Amaris, C. 256, 8793  
 Díaz Carrasco, H. 9214, 9296, 9297, 10070, 10135, 10136, 11091, 11092  
 Díaz, H. 10070  
 Díaz, L. E. 2062  
 Díaz, M. E. G. 9525  
 Díaz, N. 8419  
 Dick, J. 11059  
 Dicke, F. F. 3082  
 Dickerson, J. A. 1253  
 Dickinson, D. B. 7077  
 Dickinson, H. G. 2607, 6615  
 Dickmann, D. I. 1502  
 Dickson, A. D. 1162  
 Dickson, M. H. 1538, 1542, 3684, 8590  
 Dickson, W. K. 5164, 10634  
 Dickson, W. R. 4294  
 Didenko, T. G. 9440  
 Didus', V. I. 6903, 6971  
 Dieleman, F. L. 7678  
 Dierks-Ventling, C. 7044, 7062  
 Dieterich, H. 7653  
 Dietrich, M. 3728  
 Dietrich, S. M. C. 6410  
 Digamber Rao 8271  
 Dighe, R. S. 7140, 7154  
 Dihoru, G. 5170  
 Dijk, G. E. van 2180  
 Dijkstra, H. 8654  
 Dijkstra, J. 2520  
 Dikanava, L. A. 9529  
 Dikiš, S. P. 6475, 7522  
 Dilbeck, R. E. 3365  
 Dilday, R. H. 4394, 5309  
 Dimitrov, B. 8439  
 Dimitrov, H. 6571  
 Dimitrov, Kh. 6571  
 Dimpflmeier, R. 7653  
 Dinoor, A. 5161  
 Dirks, V. A. 3528  
 Dirksen, G. 431  
 Dishler, V. Ya. 4090  
 Ditterline, R. L. 3211, 3292, 4778  
 Dittrich, R. C. 4739  
 Divakar, N. G. 9143  
 Divinagracia, G. G. 1296  
 Dix, P. J. 10789, 10792  
 Dixit, J. 8505, 8544, 9229  
 Dixit, L. A. 339  
 Dixit, R. K. 1073, 3934, 9334, 9631  
 Dixit, R. S. 3189  
 Dixon, E. A. 763  
 Dixon, G. R. 5575, 6283  
 Dizdar', A. V. 11195  
 Djajasukanta, H. 2343  
 Djolai, M. 2882  
 Dlouhy, S. R. 10479  
 Dmitrienko, I. M. 6130  
 Dmitrienko, O. S. 9458  
 Dmitriev, V. I. 3205  
 Dmitrieva, A. N. 6051, 7041, 7060  
 Dmitrieva, A. S. 4207  
 Dmitrova, T. A. 4527  
 Döbel, P. 11081  
 Dobiáš, A. 1261, 1262  
 Dobiáš, K. 2271  
 Dobie, P. 2702  
 Dobreanu, M. 6659  
 Dobren'kova, L. G. 9147  
 Dobrenz, A. K. 6243  
 Dobrofsky, S. 473, 1291  
 Dobrovol'skaya, S. V. 307  
 Dobrovol'skii, R. S. 4335  
 Dobrovol'szky, A. 6450  
 Dobryanskii, V. A. 4806  
 Dobson, J. 6272  
 Dodd, G. D. 2616  
 Dodd, J. L. 6056, 10511  
 Dods, J. H. 661  
 Dodge, A. F. 804  
 Dodia, J. F. 8214  
 Doebley, J. F. 1134, 1135  
 Dogkeaw, P. 1413  
 Doherty, C. 10580  
 Doherty, M. A. 6224  
 Doi, Y. 10798  
 Doka, N. 1321, 2823, 6329, 6330  
 Dokuchaeva, E. N. 9167  
 Dokuzoğuz, M. 3509  
 Doležel, J. 4607  
 Dolgalev, M. P. 8724  
 Dolgikh, A. A. 9178  
 Dolgikh, S. T. 886, 10981  
 Dolgoborodova, V. P. 7563  
 Dolgova, S. P. 1064  
 Dolidze, K. G. 1625  
 Dolinšek, B. 8924, 8930  
 Doll, H. 89, 1021, 1035, 4086  
 Dollinger, E. J. 287, 5012, 7075, 9537  
 Dolores, R. C. 6147  
 Dolotovskii, I. M. 4753  
 Dolstra, O. 2606, 3660  
 Dolzhitskaya, A. G. 4022  
 Doman, N. G. 2296  
 Domashnev, P. P. 10421  
 Dommeé, B. 2239, 8653  
 Donaghey, S. 4999  
 Donald, C. M. 6071, 10269  
 Donchev, A. 6556  
 Donchev, N. 1861, 4894  
 Doncheva, S. 10480  
 Done, A. A. 3903  
 Donnelly, B. J. 2943  
 Donescu, V. 8986  
 Doney, D. L. 2345, 5326, 10769  
 Dong, H. Z. 1844  
 Dongre, A. B. 1036, 7148  
 Dongre, T. K. 3373  
 Donini, B. 5440, 9101  
 Donnelly, B. J. 104, 1743, 5841, 7880, 7881, 7945  
 Donnelly, E. D. 468, 3289  
 Donovan, G. R. 2919  
 Doodson, J. K. 6224  
 Dooner, H. K. 4039, 4953, 8031  
 Dor, Z. 8324  
 Đorđević, V. 3063  
 Doreste S., E. 4424  
 Döring, H.-P. 10432  
 Dorka, J. 8367  
 Dormling, I. 10964  
 Dornescu, A. 8730, 8806  
 Dorofeev, V. F. 45, 187, 9361, 9479  
 Dorofeeva, A. M. 4230  
 Dorokhova, T. V. 8685  
 Dorosiev, L. 9271  
 Dorossiev, L. 9271  
 Đorović, V. 9121  
 Dorozhkin, B. N. 482, 9781  
 Dorozhkin, N. A. 2484, 3529, 3557, 6327, 9109, 11033  
 Dörries, B. 2605  
 Dorsman, C. 7838  
 Dorworth, C. E. 8485  
 Dosba, F. 1069, 3454, 3458, 8729, 10308  
 Dötläcil, L. 1063  
 Doto, A. L. 6737  
 Dotto, S. R. 1789  
 Douaire, G. 10308  
 Douglas, A. W. 6592  
 Douglas, G. C. 8338, 8339, 8340, 8343  
 Doupnik, B., Jr. 8768  
 Doussinault, G. 8729, 10370  
 Dowden, H. 3645  
 Dowker, B. D. 6604, 6609  
 Downes, R. W. 2801  
 Downey, R. K. 1399, 4467  
 Downing, M. R. 1349  
 Doyle, G. G. 6017, 10459  
 Doyle, P. J. 1597  
 Dozortsev, L. A. 10858, 10867  
 D'Patil, S. S. 2301, 8307  
 Drăcea, A. E. 5921, 5927, 5970  
 Drăcea, I. 5834, 5846, 5856, 5894, 6004, 6005, 6046  
 Drach, I. P. 7293  
 Drăgănescu, E. 6505, 7558  
 Drăgănescu, I. 8975  
 Dragavtsev, V. A. 3848, 6852  
 Dragomir, L. 9783  
 Drake, D. W. 7632  
 Drake, S. R. 5441  
 Drake, T. I. 191  
 Drakes, D. 10999  
 Dranencko, E. T. 9717  
 Dranencko, I. A. 3156  
 Drapala, W. J. 6553  
 Draper, A. D. 750, 1479, 5478, 10903, 10924  
 Draper, S. R. 5785, 5900, 6099, 6435  
 Drauschke, W. 5871  
 Draycott, A. P. 8325  
 Dreier, A. F. 3751  
 Dremlyuk, G. K. 3156, 4152, 7134  
 Driscoll, C. 8787  
 Driscoll, C. J. 3915, 5862, 9390, 10264  
 Drobotá, M. 9113  
 Drobysheva, N. A. 4600  
 Drogoszewski, B. 9183, 9186  
 Drokis, M. D. 7700  
 Drolsom, P. N. 3227, 6219  
 Dronen, S. I. 6110  
 Drozdov, V. V. 11157  
 Drozdová, A. 2193  
 Drugova, I. F. 7904  
 Drummond, G. 10656  
 Drummond, G. G. 3240  
 Dryagina, I. V. 2471  
 Du, R. Q. 3907, 3933  
 Du Toit, A. J. L. 1917  
 Dua, R. P. 1409  
 Duan, X. L. 4195  
 Dube, K. S. 8919  
 Dubert, F. 7932, 7933  
 Dubey, R. S. 7731  
 Dubinin, N. M. 9347  
 Dublin, H. J. 10318  
 Dubois, J.-B. 6926  
 Dubovenko, N. P. 5489  
 Dubovitskaya, L. A. 699  
 Dubovský, J. 5029  
 Dubuc, J. P. 7082  
 Dubynin, G. B. 5526  
 Duc, G. 7733, 11082  
 Duceau, P. 8352  
 Duckett, K. E. 2304  
 Ducek, L. J. 8124  
 Duczmal, K. W. 8581  
 Dudi, B. S. 896  
 Dudina, A. N. 558  
 Dudits, D. 4813  
 Dudka, L. F. 4870  
 Dudka, Ye. L. 3076  
 Dudley, J. W. 1137  
 Dudnik, N. A. 4569  
 Ducek, J. 2424  
 Duffus, C. M. 80  
 Duganova, E. A. 1448, 9934, 10869  
 Duhan, J. C. 6671, 8319, 9635  
 Duhan, K. 8386  
 Dührssen, E. 5407, 6599  
 Duke, S. H. 10663  
 Dukes, P. D. 5668, 10701  
 Dul, S. 6206  
 Dulieu, H. L. 5346  
 Dumas de Vaulx, R. 1417, 2783, 11015  
 Dumbre, R. B. 5143, 9710  
 Dumlan, R. 7217  
 Dunberg, A. 8489  
 Dunbier, M. W. 453, 455, 456, 457  
 Duncan, R. R. 5069, 6124  
 Duncan, W. G. 4484  
 Dunkelmann, P. H. 562  
 Dunkle, L. D. 5085, 9651  
 Dunlap, J. R. 2087  
 Dunlop, J. 8263  
 Dunn, G. M. 9576, 9594  
 Dunn, J. A. 6628, 6629, 6630, 6631  
 Dunn, J. H. 5174  
 Dunphy, D. J. 5971  
 Dunphy, E. J. 10141  
 Dunwell, J. M. 5353  
 Dupuis, C. 1464  
 Durairaj, P. 8201  
 Durbin, R. D. 2368, 8332  
 Durga Prasad, M. M. K. 6746  
 Đurić, B. 7561  
 Düring, H. 7609  
 Durrley, R. C. 7156  
 Durrant, A. 9382  
 Duskabilov, T. D. 10018  
 Dutrecq, A. 9414  
 Dutt, K. V. L. N. 8922  
 Dutt, S. K. 378  
 Dutta, A. K. 9629  
 Duyvendak, R. 4234  
 Dvernyakov, V. S. 10245  
 Dvořák, J. 1072, 1781, 1782, 2903, 2904, 3905  
 Dwelle, R. B. 8285  
 Dwivedi, D. P. 8117  
 Dwivedi, J. L. 2153  
 Dwivedi, S. L. 1225  
 Dwyer, D. D. 2202  
 D'yachenko, N. I. 5898, 10332  
 Dyadishcheva, L. V. 2476  
 Dyagileva, G. E. 7987, 8123, 8848  
 D'yakov, A. B. 645  
 D'yakov, Yu. T. 1026  
 Dyba, S. 8255  
 Dyga, P. P. 10421  
 Dylenok, L. A. 7936  
 Dzagoeva, E. A. 490, 7323  
 Džamić, M. 3524  
 Džamić, R. 3524  
 Džekova, M. 11054  
 Dzerve, K. Ya. 3707  
 Dzhaifarov, A. F. 6489  
 Dzhaifarov, N. A. 3578  
 Dzhaifarova, T. R. 4049  
 Dzhaginyan, A. S. 10013  
 Dzhakeli, R. K. 1625  
 Dzhakeli, V. 1659  
 Dzhakeli, V. E. 10212  
 Dzhakoniya, Ts. S. 2691  
 Dzhandzhuliya, N. K. 10041  
 Dzhantagulova, R. K. 7426  
 Dzhavadova, L. G. 4377  
 Dzhinchradze, T. G. 2554  
 Dzhugeli, R. Ya. 9963  
 Dzhumabekov, E. 1450  
 Eagles, C. F. 5186, 7253, 8223  
 Eagles, H. A. 1902, 3046, 6053  
 Eagleton, G. E. 6797  
 Earhart, D. R. 5276  
 Earle, E. D. 283, 284, 285  
 Earnheart, A. T. 2315  
 Earp, C. 7151  
 Earp, C. F. 1189  
 Eastwood, M. A. 6601  
 Eaton, G. W. 4568  
 Ebercon, A. 8718  
 Eberhart, S. A. 1917, 4947  
 Echt, C. 10428  
 Eckenrode, C. J. 8590  
 Eckert, R. T. 812  
 Edoyan, R. A. 1379  
 Edoyan, R. H. 1379  
 Edreva, A. M. 3439  
 Edwards, C. J., Jr. 6753  
 Edwards, G. A. 5291  
 Edwards, I. B. 2984, 10339  
 Edwards, K. J. R. 8858  
 Edwards, L. 103, 6905  
 Edwards, N. C. 7250  
 Eenink, A. H. 3687, 4623, 6626, 7677, 7678  
 Efendieva, K. G. 8851  
 Efimenko, S. M. 10283  
 Efimova, I. I. 9997  
 Efremenko, E. A. 2817  
 Efremova, V. V. 10328  
 Egamberdiev, A. E. 531, 533, 5282, 6354, 7381, 9808  
 Egamov, Kh. 553  
 Egan, S. 8551



- Egea Ibáñez, L. 10944  
Eggens, J. L. 2189  
Eggi, E. E. 8257, 8951, 9750  
Eggum, B. O. 1024, 1090, 3058, 6164  
Egiazaryan, V. I. 7614  
Egli, D. B. 6030, 6032, 10138, 11151  
Ëglit, V. R. 1550  
Ëglite, M. A. 746  
Ëglitis, V. K. 2278  
Egorov, M. N. 10958  
Egorova, N. N. 4253  
Eguchi, H. 10995  
Eguchi, K. 617, 620  
Ehdaie, B. 5388  
Ehrenbergerová, J. 4078  
Ehrendorfer, F. 6835  
Ehsan Elahi Bajwa 6650  
Ehsan-ul-Haq 8995  
Eibl, H. 9853  
Eid, M. A. A. 2407  
Eide, C. J. 7339  
Eïges, N. S. 8764, 9484  
Eigsti, O. J. 2624  
Einset, J. W. 6412  
Eisikowitch, D. 9058  
Eizenga, G. C. 1783, 4850  
Ejeta, G. 9644  
Ejmond, J. 8655  
Ekberg, I. 10964  
El-Adl, A. M. 4379  
El-Afry, M. M. F. 7406  
El-Agamy, S. Z. A. 6533  
El-Ballal, A. S. I. 10192, 11198  
El-Banoby, F. E. 3738, 4688, 5661  
El-Bassam, N. 10233  
El-Beltagy, M. S. 879, 880  
El-Bouami, A. 10943  
El-Gazzar, A. 3542  
El-Ghandour, M. A. 879, 880, 6523  
El-Ghawas, M. I. 255  
El-Hassan, G. M. 3706  
El-Hattab, A. H. 4041  
El-Hattab, H. S. 4041  
El-Hidai, M. 337  
El-Kilany, M. A. 5293, 5294  
El-Lakany, M. A. 1822  
El-Marakby, A. M. 2302  
El-Masry, M. R. 880  
El-Masry, T. A. 879  
El-Mohandes, S. I. 5385  
El-Moshidy, M. A. 8059, 8801, 8802  
El-Nakday, A. M. N. 2407  
El-Negoumy, A. M. 1163  
El-Nomany, A. A. 4041  
El-Rahman, A. A. 2507  
El-Sayed Shokr 141  
El-Shawaf, I. I. S. 8532  
El-Sheikh, K. 8606  
El-Sherbeeny, M. H. 6698  
El-Sherif, E. O. 6763  
El-Sherif, M. A. 9283  
El-Shourbagy, M. N. 9614  
El-Tabey Shehata, A. 11086  
El-Tahawi, B. S. 7502  
El-Tinay, A. H. 337  
El-Tuhami, M. K. 2093  
El-Zarka, A. M. 10822  
Elçi, S. 2179  
Eldridge, R. H. 3645  
Eléas, L. G. 1040  
Elef, A. V. 1779, 5861  
Elek, M. 9546  
Elena-Roselló, J. A. 1610  
Elesawy, A. A. 8296  
Elgawhary, S. M. 10250  
Elgersma, D. M. 2571  
Elgin, J. H., Jr. 2227, 3248, 3273, 4291, 5208, 6251, 10657, 10666  
Elias, C. O. 4240  
Eliás, L. G. 1018, 1040  
Ëlijev, V. M. 3537  
Elikawela, Y. 395  
Eliseeva, A. A. 178  
Elkan, G. H. 7517, 7732  
Elkkey, T. 5160  
Elkner, K. 8536  
Ellerström, S. 855, 1530, 1668  
Elling, L. J. 3249  
Ellingboe, A. H. 2819, 10376  
Elliott, E. S. 2698  
Elliott, V. J. 10377  
Ellis, G. 6913  
Ellis, M. 10488  
Ellis, M. A. 11171  
Ellis, P. R. 6604  
Ellis, R. H. 8678  
Ellis, T. J. 453  
Elmanova, T. S. 6462  
Elmstrom, G. W. 4628, 6638  
El'nikov, N. I. 6903  
Elson, C. M. 7486  
Elstner, E. F. 4418  
Emden, H. F. van 2616, 11112  
Eme, A. 2432  
Emerson, R. A. 9541  
Emigh, T. H. 11, 12  
Emiroglu, U. 1370  
Enderby, E. A. 1375  
Endo, T. R. 7915, 7972  
Endrizzi, J. E. 3355, 4371, 6344  
Enerson, P. M. 5008, 6060, 6061, 6062  
Enescu, S. 6906  
Engel, K.-H. 3331  
Engel, L. 4570, 10936  
Engel, R. E. 5164  
Engels, J. 49, 1671  
Engels, J. M. M. 7482  
Engler, G. 2777  
Eniavel, D. F. 258  
Enikeev, Kh. K. 709, 9948  
Enkerlin S., D. 8589  
En'kova, E. I. 5516  
Ennik, G. C. 10637  
Ennos, R. A. 7297, 7298  
Enriquez, G. A. 4451, 7482, 8644  
Entrup, N. L. 332  
Epikhov, V. A. 5700  
Epstein, E. 6875  
Erasmus, J. F. E. 1929  
Erdogan, H. R. 5351  
Eremin, G. V. 6473, 6503, 10874  
Eremin, V. M. 816  
Eremina, A. V. 4885  
Ereshko, A. S. 291, 3123, 9607  
Ergabulov, O. 527  
Ergabulov, Zh. 544  
Ergesyan, R. A. 784  
Erickson, L. R. 1392, 1393, 1406  
Eriksson, G. 9203, 10964  
Eriksson, M. 2233  
Erinle, I. D. 4656  
Erinyak, N. I. 1793, 2928  
Ermakov, A. I. 65, 2773  
Ermakov, S. A. 3011, 3019  
Ermakova, N. A. 9224  
Ermakova, N. V. 9932  
Ermakova, P. K. 4056, 4057  
Ermilov, A. S. 1700  
Ermishina, N. M. 10462  
Ermolova, E. V. 4647, 11048  
Ernazarov, A. Yu. 530, 4382  
Erokhin, G. A. 9520  
Errico, A. 11080  
Ershov, I. I. 5557, 5558  
Erskine, W. 3875, 6808, 8626, 8679, 11190  
Erygina, E. P. 4023  
Esah Yip 10848  
Escovar M., I. B. 3408  
Esen, A. 4995, 4996  
Ëshankhodzhaev, T. 4374  
Eshbaugh, W. H. 657, 5403  
Eshed, N. 5161  
Esipova, Z. I. 4345  
Eskew, E. B. 50  
Eskins, K. 7769  
Es'kova, L. I. 2050  
Eslick, R. F. 3088, 3124, 5022, 5028, 7101, 7102, 8111  
Espinal Aguilar, J. A. 7598  
Espino, E. 7448  
Espinosa, R. 7409  
Essa, T. A. 11161  
Estilai, A. 5389  
Estrada, N. 8293  
Esty, J. C. 9649  
Esyunina, A. I. 146  
Eto, T. 1527, 8513  
Etoh, T. 1527, 8513  
Eunus, A. M. 2134  
European Brewery Convention 3120  
Evans, A. M. 2237, 2685  
Evans, D. A. 594, 8602, 10793  
Evans, D. W. 3276, 4291, 6252  
Evans, G. M. 9384  
Evans, H. C. 629  
Evans, J. C. 4846  
Evans, L. E. 234, 1731, 3893, 3894, 6679, 6684  
Evans, L. J. 1150, 1151  
Evans, L. T. 8591, 8713, 10259, 10268  
Evdokimenko, V. M. 3525  
Evdokimov, M. G. 5869, 8748  
Everett, H. 9524  
Everett, H. L. 6012  
Everett, N. P. 8471  
Everette, G. A. 3422  
Everly, R. T. 3082  
Eversmeyer, M. G. 1698, 1871, 4915  
Everson, E. H. 2986, 5853  
Evsikova, L. P. 7779  
Evstratov, A. I. 9948  
Evtikhieva, Zh. L. 4242  
Evtushenko, L. V. 7041  
Ewart, J. A. D. 6960  
Ewens, W. J. 9346  
Ewertson, G. 3090, 7083, 8073  
Ewing, E. E. 7326, 7332, 8294  
Eyal, Z. 3964, 10366  
Eyberg, D. A. 9250  
Ëyubova, D. S. 3580  
Ëzrokhin, L. M. 2868  
Ezuka, A. 383, 384, 1232, 5138, 6184  
Faber, S. 7105  
Fabert, V. 1480  
Fabig, F. 5544  
Fabris, J. D. 581  
Faccioli, F. 1426  
Fadeeva, T. S. 1164, 1478, 1522, 1524  
Faden, R. B. 6471  
Faedi, W. 3521, 6477, 8429  
Fagnani, A. 9200  
Fahrenholz, C. H. 1076, 10246  
Fairbrothers, D. E. 9339  
Fairey, N. A. 6020, 6031  
Fajersson, F. 9445  
Fakhar-ul-Islam 6774  
Fakorede, M. A. B. 1979, 8817  
Falavigna, A. 5560  
Falcinelli, M. 4259, 4260, 5153, 5179, 7274  
Falconer, D. S. 2661  
Falk, D. E. 8068, 8086, 9452  
Falloon, P. G. 8618  
Faludi-Daniel, A. 6054  
Faluyi, M. 4305  
Famina, Zh. M. 2901  
Fan, H. P. 1703  
Fanelli, C. 3959  
Fang, H. C. 403  
Fang, T. H. 4771  
Fang, X. Z. 403  
Fang, Z. X. 4771  
Fanizza, G. 767  
Fantes, J. A. 3303  
Faqr M. Azhar 7376  
Faqr Muhammad Anjum 5826, 5827  
Farag, M. A. 9842  
Farago, L. 6120  
Farhat Fatima Shahaz 7128  
Faria, J. C. 5140  
Farina, C. 10933  
Farineau, J. 4058  
Farkas, J. 8550  
Farkas, T. 5814, 6054  
Farkhutdinova, G. F. 975  
Farley, J. D. 11062  
Farmer, R. E., Jr. 9175, 9946  
Farnsworth, B. 7315  
Farook, S. A. F. 5645  
Farooq Lodhi 6286  
Farouk A. Salih 4665  
Farouk Sa. 1566  
Farrer, W. J. 8713  
Fartushnyak, A. T. 7764  
Fassuliotis, G. 5648, 10086  
Fastnaught, C. E. 3088  
Fatma Ahmad 9057  
Faulkner, G. J. 7674  
Faulkner, H. 9894  
Faulkner, K. 3040  
Faulkner, L. R. 4291  
Faulks, A. J. 5045, 7099  
Faure, B. 7409  
Faust, N. 3288  
Favila, V. 7839  
Fawusi, M. O. A. 7715  
Fazli Qayyum 6773  
Fazuoli, L. C. 10801, 10802, 10804  
Feaster, C. V. 4368, 5287, 6342  
Fedak, G. 1768, 1769, 2019, 2020, 2028, 2047, 3098, 4082, 7865, 7906, 8070, 8071, 8080  
Fedchenkova, G. A. 10876  
Fedin, M. A. 10252  
Fedorenko, O. M. 10638  
Fedorinina, T. T. 3208  
Fedorov, A. K. 4236  
Fedorov, P. S. 273  
Fedorova, A. I. 5542  
Fedorova, G. A. 470  
Fedorova, M. I. 4647  
Fedorova, N. I. 1313  
Fedorova, T. N. 2996, 2999  
Fedorova, V. O. 512  
Fedotov, I. S. 4589  
Fedotova, V. D. 164, 3904  
Fedulov, Yu. P. 1689  
Fedulova, N. M. 3108, 3118, 4099, 9599, 10522  
Feenstra, W. J. 4749  
Fefelov, V. A. 9997  
Fehér, T. 3714  
Fehr, W. R. 1594, 3748, 3750, 3752, 3763, 3764, 4734, 5674, 5676, 5677, 5678, 5679, 5680, 5682  
Feillet, P. 4882, 7197, 8189  
Fein, B. L. 3532  
Feitosa, E. P. G. 7429  
Fejér, O. 8756  
Fejer, S. O. 2019, 2020, 2028, 2047, 4082  
Fel'dberg, K. A. 11200  
Feldhay, H. 8324  
Feldman, M. 1773, 4836, 7919  
Feldman, M. W. 2775, 8076  
Felsenstein, J. 3808  
Fenschuk, T. D. 3265  
Fencik, R. 2692  
Fennell, J. F. M. 6609  
Feranec, P. 9586  
Feret, P. P. 7640, 7641, 10033  
Ferguson, T. U. 2360  
Ferik, M. 6927  
Feri, R. J. 10479  
Fernandes, D. T. 6423  
Fernandez, G. C. J. 6803  
Fernández Martínez, J. 4473  
Fernández Piqueras, J. 4316, 5240  
Fernando, B. W. P. 7572  
Fernando, H. 395  
Fernqvist, I. 4502  
Ferrari, F. 6022  
Ferrari, G. 4034, 7711  
Ferraris, R. 1357, 2071, 3140  
Ferrata, M. 3395  
Ferraz, C. A. M. 10705  
Ferraz, E. C. 1363  
Ferraz, S. 6729  
Ferree, D. C. 4513, 9923  
Ferreira, J. H. S. 1924  
Ferrell, W. K. 4597  
Ferrière, H. 9094, 9909  
Fery, R. L. 5668  
Fesenko, I. V. 262, 8049  
Fesenko, N. N. 1241



- Fesenko, N. V. 8927  
Fidan, Y. 5499  
Fiddian, W. E. H. 5773  
Fideghelli, C. 3508, 3511, 5450, 6477, 6509  
Fidler, D. 3067  
Fiedler, W. 760, 9992  
Fielde, M. A. 6363, 9014  
Fierros, A. M. 798  
Figueiredo, I. B. 5335  
Figueiredo Junior, E. R. 6376  
Figueiredo, P. 6376  
Figueiredo-Ribeiro, R. de C. L. 2771  
Figuerras, C. de 10669  
Figueroa, A. 4881  
Fike, V. 6479  
Filatenko, A. A. 9361, 9365  
Filatova, O. D. 2212  
Filion, W. G. 8665  
Filipas, T. B. 307  
Filipeka, V. F. 4090  
Filipescu, H. 9891  
Filipiak, K. 1110  
Filippenko, I. M. 780, 10007  
Filippenko, L. I. 6548  
Filippetti, A. 1603, 2670  
Filonchenko, P. A. 7924  
Filutowicz, A. 10763  
Finch, R. A. 1045, 3102, 4088, 5045  
Findejs, R. 2262  
Findley, W. R. 287, 7075, 8063, 10590  
Fink, T. C. 8865  
Finkner, M. D. 10570  
Finkner, R. E. 10570  
Finkner, V. C. 5040  
Finland, Hankkijan Kasvinjalostuslaitos 7820  
Finlay, K. W. 1917  
Finley, W. F. 3142  
Finney, K. F. 1095, 1593, 10323  
Finney, P. L. 1593  
Finney, R. E. 5936  
Firoza Khatun 7399, 8317  
Fischbeck, G. 8088, 8706  
Fischer, R. A. 4884, 5813  
Fisenko, L. I. 2481, 5429  
Fisenko, P. P. 4727  
Fishbeck, K. A. 5222  
Fisher, C. D. 1042  
Fisher, H. M. 6897  
Fisher, J. B. 7575  
Fisher, J. M. 8771  
Fisher, N. M. 5659  
Fisher, V. J. 5646  
Fishman, M. L. 5079  
Fisichella, G. 6958  
Fitch, M. M. 7417, 9023  
Fitzgerald, W. 7112  
Flath, R. A. 5500  
Flavell, R. 8  
Flavell, R. B. 2857, 3014, 3918, 4844, 5850, 5866, 5996, 6029, 9394  
Fleming, A. A. 5992, 8041, 8830  
Flengmark, P. 8360  
Flerova, Zh. I. 5700  
Fletcher, A. M. 4593  
Fletcher, D. S. 7177  
Fletcher, G. B. 7078  
Fletcher, J. T. 3308  
Flick, C. E. 10793  
Flinn, J. C. 3740  
Floor, J. 5430  
Florence, L. Z. 8479  
Flores Berrios, M. de J. 10803  
Flores, C. S. 2337  
Florescu, E. 1549  
Floria, F. G. 9050  
Flotre, D. M. 4161  
Flowers, T. J. 8913  
Fobes, J. F. 8509  
Focke, R. 8702, 9426  
Fogher, C. 5997, 7061  
Fojtik, A. 1279, 4265  
Fokina, E. S. 10445  
Fokina, V. M. 3019  
Foltyn, J. 1732, 2866, 10314, 10317  
Foma, M. N. 9976  
Fomba, S. N. 8202  
Fomchanka, N. S. 7052  
Fomchenko, N. S. 6042, 7052  
Fomin, V. S. 10158  
Fomina, E. N. 6480  
Fomina, Zh. N. 1729, 2901, 7921  
Fong, F. 4981, 7056  
Fontenot, D. S. 3772, 11174  
Fontes, L. G. 6768  
Fonzo, N. di 1032, 1034, 4052, 5997, 6048, 7061  
Foot, M. A. 6333  
Foraker, R. W. 2286, 8302  
Forbes, I. 6272  
Forbes, I., Jr. 6273  
Ford, M. A. 10315  
Forde, B. G. 6028  
Forde, M. B. 8235  
Fornasari, E. 6048  
Forni, C. 1850, 2873, 3959  
Foroughi-Wehr, B. 8105  
Forrest, G. I. 3640  
Forrest, J. M. S. 3332, 6333  
Forrester, R. I. 1267  
Forrey, R. R. 5500  
Fors, L. 7657, 10043, 10058, 10071, 10103  
Forsline, P. L. 1432, 10865  
Forster, G. 1519  
Fortini, S. 1816, 2946  
Fossati, A. 1054, 2878, 2990, 3966, 6926, 10285  
Foster, D. J. 3481  
Foster, F. E. 4831  
Foster, J. 4934  
Foster, J. E. 2988, 3010, 5014, 5822  
Foster, K. W. 3143, 4159, 4233  
Foucher, J. P. 993  
Fougereux, A. 2699  
Fouilloux, G. 42  
Foulds, W. 4312  
Fouqué, A. 9975  
Fourie, A. P. 1926  
Fouts, J. L. 1053  
Fowke, L. 7484, 8687  
Fowler, D. B. 91  
Fowler, D. P. 9192  
Fox, R. L. 11111  
Foy, C. D. 3361, 9818, 10719  
Foyer, C. H. 6222  
Fraer, M. S. 5915  
Frakes, R. V. 7258, 7259, 8242, 8243  
Francáková, H. 2948  
France, INRA, Station d'Arboriculture Fruitière, Angers 1423, 3502  
France, Institut de Recherches Agronomiques Tropicales et des Cultures Vivrières 3828, 8670  
France, Institut de Recherches du Coton et des Textiles Exotiques 1327  
France, Institut National de la Recherche Agronomique 2585  
France, Institut Technique Français de la Betterave Industrielle 1365  
Francis, C. M. 4299  
Francis, T. R. 4071  
Franczowiak, J. D. 10521  
Franco, J. 7346  
Frank, J. 6448  
Franke, R. 22, 75, 5809, 5810, 6881  
Frankel, O. H. 10267  
Frankel, R. 5628, 10083, 10791  
Franken, J. 8534  
Franken, S. 8531  
Franklin, D. 7172  
Franklin, E. C. 7634  
Franzke, C. J. 5076  
Franzke, W. 3885  
Fraschina, A. 5006  
Fraser, J. E. 5263  
Fraser, R. S. S. 6667, 11065  
Frauen, M. 10095  
Frazier, W. A. 5545  
Frecon, J. 3552, 9951  
Frederickson, L. J. 2876  
Frederiksen, R. A. 3888, 4166, 4167, 7172, 8146, 8151, 10496, 10583  
Freeland, R. 10483  
Freeling, M. 3050  
Freeman, J. A. 7344  
Freeman, K. C. 5073, 10590  
Freeman, R. E. 7658  
Fregoni, M. 5502  
Freitas, A. P. do C. e 4910  
Frencel, I. M. 7235  
French, E. M. 5263  
French, E. R. 9791, 10697  
French, W. M. 4346, 6287, 6289, 6318  
Frencha, J. H. 3867  
Frève, A. 6253  
Frey, K. 7006  
Frey, K. J. 1901, 3004, 4930, 5961, 5966, 6083, 7007  
Freytag, A. H. 8326, 10767  
Freytag, G. F. 5655  
Fribourg, C. E. 3333  
Fridell, J.-E. 3322, 3324  
Friebe, B. 4939  
Fried, P. M. 1054, 2877, 2878, 3954, 10285  
Friedemann, P. D. 4955, 10427, 10449  
Friedt, W. 1907, 8105, 8109  
Fritsen, H. 4247  
Fritz, J. O. 8136  
Fritzsche, R. 9933  
Frogner, S. 6878, 8862, 9508  
Frölich, W. G. 1130  
Frolíšek, M. 3272  
Frolov, S. I. 485  
Frosheiser, F. I. 4288, 5210, 5211, 6249  
Frunze, I. I. 8827  
Fruscante, L. 939, 940  
Fry, W. E. 10238  
Fryrear, D. W. 5301, 6341  
Fu, P. Y. 5125  
Fu, W. C. 2725  
Fu, W. Z. 2725  
Fuchinoue, Y. 4448  
Fuchs, W. 8860  
Fucikovsky Zak, L. 5321  
Fuentealba, A., J. 5253  
Fuerst, P. A. 4776, 4777  
Fuh, W. J. 2725  
Fuhrhop, W. D. 4325  
Fujigaki, J. 2918, 8092  
Fujii, K. 382, 5118, 8158, 8832  
Fujii, T. 2848, 7847  
Fujimaki, H. 2115, 4186, 6153  
Fujime, Y. 9092  
Fujino, M. 8066  
Fujisawa, I. 6377  
Fujita, K. 2688  
Fujizawa, M. 2822  
Fujiyama, D. K. 6527  
Fukuda, S. 3412, 4423  
Fukudome, N. 7464, 7465  
Fukunaga, K. 8832  
Fukuyama, T. 8087  
Fulks, B. K. 1548  
Fuller, M. P. 5186, 7237, 7253  
Fulton, R. W. 2377, 2383  
Funes, F. 2062  
Funk, C. R. 416, 5164, 10634  
Funk, D. T. 10031  
Funnah, S. M. 5683, 5684  
Fuochi, A. 7711  
Furber, M. J. 6437  
Furgal, F. J. 6679  
Furr, R. E. 10729  
Fursa, T. B. 2625  
Fursov, V. N. 5283  
Furst, G. G. 5521  
Fürste, K. 10763  
Furtado, M. J. 3415  
Furuichi, N. 6329  
Furuta, Y. 6965  
Futsuhara, Y. 9690  
Fuzatto, M. G. 10705  
Fyfe, S. K. 2608  
Gabay-Laughnan, S. J. 1975, 8026, 8027  
Gabelman, W. H. 826, 6602, 6603, 8501, 8543  
Gaborit, T. 6676  
Gabryl, J. 3683  
Gabuniya, L. A. 9969  
Gacek, E. 1168, 1169, 3111, 7115  
Gachechiladza, N. D. 10927  
Gaddagimath, R. B. 1358  
Gadeeva, N. R. 7059  
Gadiev, R. Sh. 8453  
Gadzhev, Z. Sh. 770  
Gagnon, C. 1283, 6253  
Gai, J. Y. 4731  
Gaike, M. V. 10550  
Gaines, R. 5865  
Gaines, T. P. 9633  
Gajić, M. 7048  
Gajos, Z. 9862  
Galaktionova, V. M. 4232  
Galal M. Moawad 2518  
Galbiati, C. 8450  
Galbraith, D. W. 4791  
Galchenko, N. B. 785  
Gale, J. S. 5718  
Gale, M. D. 1709, 1756, 1758  
Galimullin, R. Z. 5175  
Galinat, W. C. 9570, 9595, 9596, 9598  
Galindo A., J. 5321  
Galkin, A. N. 10348  
Gall, W. R. 811  
Gallagher, J. N. 1706  
Gallagher, L. W. 5882  
Gallais, A. 4800, 7812, 9398  
Galletta, G. J. 1479, 5478, 10903, 10924  
Galli, J. 8889, 8891, 8892, 8894, 9653  
Gallun, R. L. 1106  
Galterio, G. 1816, 2946  
Galun, E. 4634, 5349, 6400, 7441  
Galvão, J. D. 5982, 5995, 10490  
Gálvez E., G. E. 4224, 5663, 6732  
Gálvez, G. C. 10803  
Gálvez, G. E. 4224  
Gama, E. E. G. e 1971, 4011  
Gamborg, O. L. 594, 7039, 8687  
Gamzikova, O. I. 3118, 3928, 4099, 9507, 10310  
Ganacharya, N. M. 2734  
Ganapathi, A. 10845  
Ganapathy, P. S. 987  
Ganders, F. R. 998, 10207  
Gandhi, S. M. 1829  
Gandilian, P. A. 310  
Gandilyan, P. A. 310  
Ganeshiah, K. N. 5640, 6818, 9337  
Gangadharan, C. 3179  
Gangadharan, K. 7157, 7161, 7163  
Gangaprasada Rao, N. 9066  
Gangrade, G. A. 2173, 3773  
Ganguly, A. K. 7722  
Ganguly, B. 188  
Ganieva, M. 9822  
Gannaway, J. R. 1352  
Gans, P. T. 6321  
Gao, F. L. 3753  
Gao, M. W. 8906  
Gao, Z. L. 1794  
Garan'ko, I. B. 915  
Garanovich, I. M. 8436  
Garas, N. A. 6332  
Garber, M. J. 4780  
Garber, R. H. 552  
Garbur, I. V. 8827  
Garcia, A. 3769, 3864  
Garcia, A. A. 1040  
García Bernal, A. 9312  
García Díaz, R. 10887  
García García, J. E. 10944  
García, J. L. 10135  
García, M. A. 1040



- García, R. M. 9214, 9280, 9296, 9297, 10155, 11091, 11092
- Garcia, V. V. 7799
- Gardener, C. J. 7308
- Gardenhire, J. H. 1049
- Gardner, C. A. C. 3070
- Gardner, C. O. 2003, 6126
- Garet, B. 7505
- Garg, R. C. 5626
- Garkavyi, P. F. 2039, 10518
- Garley, B. 3556
- Garlyev, G. 525, 542
- Garraway, M. O. 10493
- Garretsen, F. 6626, 7696
- Garrison, D. D. 565
- Garrison, M. V. 5083
- Garrison, S. A. 5564
- Garrity, D. P. 92, 341
- Garud, T. B. 7164
- Garwood, D. L. 8549
- Gasanenko, L. S. 2212
- Gasanov, N. A. 727
- Gascho, G. J. 2335
- Gaspar, A. M. 6424
- Gaspar, C. L. 7192
- Gaspär, I. 9443
- Gáspár, S. 9560
- Gaspar, T. 3388
- Gasparian, P. B. 4652
- Gasparyan, P. V. 4652
- Gasser, H. 3288
- Gastal, F. L. da C. 8889
- Gatehouse, A. M. R. 2702
- Gatehouse, J. A. 2702
- Gatin, F. G. 732, 9137
- Gatina, E. Sh. 714, 6500, 7563, 10882
- Gaudillière, J. P. 143
- Gaultier, J.-M. 7444
- Gaur, G. S. 8505, 9229
- Gaur, H. S. 7795
- Gaur, S. L. 3386
- Gautam, P. L. 1762
- Gauthier, F. M. 4838
- Gautreau, J. 7505
- Gautreaux, M. 8416
- Gavankar, D. P. 10713
- Gavazzi, G. 7044, 8028
- Gavina, F. 8433
- Gavrikova, A. A. 981, 10169
- Gavrilina, L. V. 5439
- Gavrilova, O. M. 1796
- Gavrilyuk, I. P. 1047, 8848, 8933, 9750
- Gavrish, S. F. 1552
- Gavrishov, N. N. 2479
- Gawęcka, M. 8425
- Gay, G. 3900
- Gay, S. 10138, 11151
- Gayed, S. K. 4445
- Gazit, S. 7570
- Gazizov, V. R. 2256
- Gazyzadā, F. N. 787
- Gebauer, J. E. 8013
- Gebhardt, C. H. 6830
- Gebre-Mariam, H. 223
- Gebrekidan, B. 4113
- Geczki, I. 9548
- Gee, G. W. 5359
- Geetha Krishnan Nair, P. 6761
- Gegel'skii, I. N. 8459
- Gehriger, W. 1305
- Geiger, H. H. 7997
- Geiser, M. 10432
- Geisler, G. 6043
- Gelfi, N. 10145
- Gel'tman, V. S. 8466
- Genchev, S. 9273
- Gendel's, T. V. 9496
- Gengenbach, B. 3077
- Gengenbach, B. G. 1976, 7053, 8043, 9566
- Genier, G. 448, 7279
- Genizi, A. 997
- Gentinetta, E. 1032, 4052, 5997, 7061, 8029, 10436
- Genung, W. G. 2421
- Genys, J. B. 1507
- Geoffroy, F. 1480
- George, B. F. 11030
- George, B. W. 554, 4393, 6362, 7394, 10728
- George, D. W. 7885
- George, L. 7528, 8362
- George, M. K. 4661, 6123, 6736
- George, W. L., Jr. 4645, 6653
- Georgescu, C. M. 8327
- Georgi, B. 1039
- Georgiev, S. 128, 6506
- Georgiev, T. 4008
- Georgiev, T. M. 9564
- Georgieva, I. D. 3439
- Georgieva-Todorova, I. 2413
- Georgieva-Todorova, J. 2413
- Georgieva, V. 8690
- Gerard, C. J. 8306
- Gerashchenko, V. I. 2480
- Gerasimenko, G. G. 2556
- Gerasimov, S. O. 2631
- Gerba, N. P. 11196
- Gerechter-Amitai, Z. K. 10383
- Gerginova, Ts. 8409
- Gerić, C. 7048
- Gerić, I. 7048
- Gerlach, W. L. 1070, 3918, 5806, 5866, 10243, 10261
- Gerloff, G. C. 8543
- German, J. B. 1990
- Germeck, E. B. 10759
- Gerola, F. M. 4566, 10010
- Gerish, E. E. 5984
- Gerstel, D. U. 2367, 6411, 7453
- Gesos, K. F. 548, 5297, 9005, 9806
- Getsadze, G. N. 11202
- Gevers, H. O. 1919
- Ghaderi, A. 5853
- Ghafoor Arain, A. 6889
- Ghanavati, N. A. 5388, 9065
- Ghandilyan, P. A. 310
- Ghanshyam Das Sharma 10577
- Ghanshyam Sud 700
- Ghena, N. 1429
- Gheorghe, D. 9437
- Gherardi, G. 8432
- Gherghi, A. 1445, 9107, 9929
- Ghidoni, A. 9550
- Ghijzen, H. 5163
- Ghildyal, B. P. 10489
- Ghimbașan, O. 8974
- Ghimbașan, R. 8974, 8983, 9789
- Ghiorghiță, G. I. 2036, 8845, 9050
- Ghobrial, G. I. 9659
- Ghonsikar, C. P. 8135
- Ghorpade, D. S. 9641, 9664
- Ghosh, A. 5148, 9714
- Ghosh, A. K. 10610
- Ghosh, B. C. 5109
- Ghosh, D. C. 2163
- Ghosh Hajra, N. 1216, 2145
- Ghosh, P. 4696, 6675
- Ghosh, S. 8194
- Ghosh, S. N. 3380
- Ghosh, S. P. 8414
- Ghoshal, K. K. 9480
- Ghoshe, D. 4862
- Ghunke, S. M. 8435
- Ghure, T. K. 10756
- Gianinazzi-Pearson, V. 160
- Gianinazzi, S. 160, 614, 4444
- Gibbons, G. C. 10237
- Gibbons, R. W. 8375
- Gibertoni, P. 3511
- Gibson, R. W. 499, 10700
- Gichner, T. 10540
- Gidnavar, V. S. 1210, 1339, 2287, 2768
- Giebel, J. 2276, 2277
- Giertych, M. 6583, 7648
- Giesbrecht, F. G. 2381
- Giese, H. 4086, 8125
- Gilani, M. M. 1699
- Gilbertson, K. M. 4102, 5023
- Gilchrist S., L. 204
- Gildemacher, B. H. 6108
- Giles, K. I. 10545
- Gilioli, J. L. 5673, 8605
- Gill, A. A. 3946, 6096
- Gill, A. S. 9640
- Gill, B. S. 5620, 8772
- Gill, C. C. 3130
- Gill, H. S. 8273
- Gill, K. S. 110, 312, 378, 1808, 1809, 1881, 1893, 1895, 3889, 6896, 6940, 9442
- Gill, P. S. 8213
- Gill, R. 8566
- Gill, S. P. S. 524, 9235
- Giller, Yu. E. 2742, 11051
- Gillespie, J. H. 3806
- Gillespie, J. M. 6820
- Gillett, J. M. 1286
- Gilley, J. R. 92
- Gilligan, C. A. 9239
- Gilman, D. F. 3772, 11174
- Gilmore, A. R. 1512
- Gilmore, E. C. 1049
- Gilyazetdinov, Sh. Ya. 6784
- Gindrat, D. 11003
- Gingery, R. E. 4074
- Ginoux, J. P. 2699
- Ginzar, K. P. 11177
- Ginzburg, E. Kh. 10202
- Giordano, I. 7784
- Giordano, L. de B. 8543
- Giorgi, B. 7893, 7917, 10296
- Giorgi, L. 114
- Giraldez, R. 7998, 7999, 10417
- Giraldo, C. J. de 8421
- Giraldo, G. 8649
- Girbu, S. 1445
- Giri, D. N. 8205
- Giriraj, K. 7490, 9885
- Girko, V. S. 2083, 10572
- Giroday, E. B. de la 570
- Girogi, I. U. 8893
- Giudice, M. de L. P. del 7747
- Giulietti, A. M. 2771
- Giunchi, L. 3517
- Giurea, M. 9107, 9929
- Gladstones, J. S. 3295
- Gladysheva, N. M. 1114
- Glass, A. D. M. 10545
- Glavatskaya, T. P. 3233
- Glazacheva, L. I. 4275
- Glaze, R. M. 10570
- Glazunova, E. M. 10927
- Gleba, Yu. Yu. 3671, 6407
- Glebova, E. I. 9981
- Gleeson, A. C. 4816
- Glendinning, D. R. 2253, 4323
- Glick, H. 4822, 7870
- Gloeckler, R. 3858
- Glotov, N. V. 1500, 3624
- Glover, D. V. 5001, 8037, 8045
- Głowacz, E. 4943
- Glueck, J. A. 7151, 8138
- Glukhovtseva, N. I. 3890
- Glushchenko, E. Ya. 902, 915, 8545
- Glushchenko, G. I. 7293
- Glushchenko, I. E. 4863, 10325
- Glushchenko, N. N. 10193
- Gnangbe, F. 8330
- Göbö, A. 6929
- Gocho, H. 4839, 4840, 4841
- Godara, N. R. 9149
- Goddard, B. V. D. 2008
- Goddard, R. E. 7642, 8482
- Goddrie, P. D. 688, 6482
- Godhani, P. R. 3742, 3743
- Godicheau, M. 682, 3506, 3513
- Godilani, E. C. 331
- Godoladze, G. 5689, 7768
- Godon, B. 7946
- Godreau, V. C. 10749
- Godward, M. B. E. 11185
- Godzadze, E. B. 764
- Godziewicz, W. 10763
- Goel, L. B. 3978, 7965, 8707, 8762, 8765, 8769, 9486
- Goertz, P. G. 1981
- Goertzen, K. L. 4151
- Gogiava, E. Sh. 2545
- Gogiberidze, A. A. 9967
- Goheen, A. C. 4574
- Gohil, R. N. 6429
- Goian, M. 5921, 5927, 5970
- Goiko, V. A. 9230
- Gold, R. E. 4398
- Goldbach, H. 49, 1671
- Goldberg, R. B. 8604
- Goldblatt, P. 5745
- Golden, W. G. 394
- Golding, G. B. 3812, 7810
- Goldman, S. L. 10460
- Goldsworthy, P. R. 11164
- Goldy, R. G. 8404
- Golets, E. V. 3311, 4329
- Goli, K. 1206
- Goliadze, Sh. K. 1463, 9172, 9921, 10216, 10219
- Goliáš, J. 3592
- Golik, V. S. 6937, 6946, 10346
- Golikov, A. M. 808
- Golodriga, P. Ya. 1490, 2548, 3615, 5489
- Goloff, A. A., Jr. 5793
- Gologan, I. 9324
- Golosov, V. A. 3352
- Golovatyi, A. I. 9150
- Golovina, L. N. 4783
- Golubev, V. N. 4503
- Golubovskaya, I. N. 126, 8032
- Golyshva, M. I. 6095
- Gomaa, H. M. 879, 880
- Gomaa, M. E. 534, 6002, 6003
- Gomez, A. A. 3150
- Gómez-Barona, H. A. 4686
- Gómez-Campo, C. 850, 854, 864, 3824, 5371
- Gómez, G. 10770
- Gomez, J. B. 10848
- Gomez, K. A. 6162, 8153
- Gómez Pitera, C. 4299, 4300
- Gonçalves, M. M. 6422
- Gonchar, M. T. 5508
- Goncharenko, A. A. 3011, 3019
- Goncharov, P. L. 412, 3850
- Goncharova, A. V. 4302
- Goncharova, E. A. 6503
- Goncharyuk, M. M. 139
- Gonella, J. A. 10441
- Gong, Z. Z. 4193
- Gonik, S. A. 10174, 11103
- Gonzalez, A. R. 5625, 9274
- González Ávila, M. 10990, 10991
- González Barrios, J. 8920
- González-Fernández, A. 2784
- González, L. A. 10135
- González Mauri, J. 10443
- González Molina, C. L. 10749
- Good, D. N. 10483
- Goodchild, B. 7763, 7770
- Goodchild, N. A. 7299, 10319
- Goode, M. J. 7675, 11024
- Goodenough, P. W. 3716
- Goodin, P. 8597
- Gooding, G. V. 622, 2365, 5339
- Gooding, H. J. 761
- Goodman, M. M. 1974, 3032, 4012, 4954, 5981, 5991, 7033, 8804, 9533, 9562, 9563, 10463
- Goodman, R. M. 4745, 11176
- Goodspeed, T. H. 595
- Gopal, J. 2248, 4315
- Gopala Krishna Rao, M. 5120
- Gopala Rao, P. 2405
- Gopalakrishna Rao, M. 1777, 2452, 8900
- Gopalakrishnan, P. K. 2634, 10074, 10087, 10115, 10116
- Gopalam, A. 3445, 7454
- Gopalan, H. N. B. 1628
- Gopalkrishna Rao, M. 11068
- Gopimony, R. 4661, 9996
- Gopinathan Nair, V. 2142, 2445, 4493, 6149, 6464
- Goplen, B. P. 435, 436, 437, 438, 439, 440, 441, 442, 443, 3243, 3256, 6242, 8270
- Goplin, E. D. 3096
- Góral, S. 4256
- Gorban', G. S. 7002
- Gorban', V. F. 261



- Gorbatenko, E. M. 2649  
 Gorbatovskaya, A. T. 529  
 Gorbet, D. W. 3479, 4125  
 Gorbunov, V. P. 282  
 Gorbunova, V. Yu. 2978  
 Gordeeva, L. V. 9638  
 Gordeeva, N. K. 9715  
 Gordeeva, T. N. 2962, 3897  
 Gordeĭ, G. M. 222, 6996  
 Gordeĭ, I. A. 222, 6996  
 Gordon, D. T. 4074  
 Gordon, G. H. 5862  
 Gordon, I. L. 148, 1754  
 Gordon, P. N. 6040  
 Gorgidze, A. D. 1778, 1820  
 Gorin, V. E. 4275  
 Gorina, E. 8928  
 Gorina, E. D. 9716  
 Gorkovenko, M. I. 5254  
 Gorla, M. S. 4966, 8042  
 Gormley, R. 8551  
 Gornyi, V. A. 4430  
 Gorodov, V. T. 2045  
 Gorova, T. K. 7676  
 Gorovaya, T. K. 5594, 7676  
 Gorshkova, L. I. 7546  
 Gorshkova, L. M. 559  
 Gorshkova, V. A. 2045, 8072, 10517  
 Gorskiĭ, A. M. 9410  
 Gorz, H. J. 4243, 6121, 6126, 7147, 8140, 8248, 8267, 9625, 9743  
 Gosal, S. S. 5713  
 Gosden, A. F. 7295  
 Goška, M. 1297  
 Gostev, A. A. 9904  
 Goswami, L. C. 953, 2390  
 Goth, R. W. 6324, 7337  
 Gottlieb, J. 8718  
 Goto, K. 419, 420, 4250, 4251, 4252, 5191, 5192, 9736  
 Goto, M. 1460  
 Goto, T. 140, 6941  
 Gotoh, K. 419, 420, 4250, 4251, 4252, 5191, 5192, 9736  
 Gotoh, T. 140, 6941  
 Gottlieb, L. D. 5734, 5749  
 Gottschalk, W. 5739, 9325  
 Goud, J. V. 927, 1138, 1563, 2081, 2088, 2089, 2418, 2916, 5072, 5081, 6669, 6735, 8727, 8882, 9646, 10576, 10819  
 Gouda, B. T. S. 7166  
 Gough, F. J. 4905  
 Gough, S. P. 3110  
 Goujon, M. 1387  
 Gould, F. 11035  
 Gould, W. A. 6317  
 Gour, V. K. 10398  
 Govedarov, I. 1825  
 Govil, G. N. 9642  
 Govil, J. N. 4128  
 Govind Prakash 2622  
 Govindu, H. C. 5404  
 Govorukha, T. N. 4474  
 Gowda, B. T. S. 10585  
 Gowda, C. L. L. 3783  
 Gowda, P. M. 9773  
 Gowda, S. S. 2169, 9661  
 Gowers, S. 481, 1300, 3466, 5567, 5568  
 Goyal, S. N. 7487, 10573  
 Gozhita, S. 8774  
 Gozlan, G. 8718  
 Goźliński, H. 8789  
 Graaf, N. A. van der 3450  
 Grabor, G. A. 8462  
 Grabovets, A. I. 101, 1727, 6922  
 Grabovskii, N. P. 2960  
 Grace, J. P. 6754  
 Gracen, V. 9524  
 Gracen, V. E. 283, 284, 285, 5013, 6041  
 Graffis, D. W. 3255  
 Graham, P. H. 6720, 10109  
 Graham, R. D. 3000  
 Graham, W. D. 72  
 Grama, A. 8718  
 Gramotenko, P. M. 7606  
 Grande Crespo, M. J. 9311  
 Grando, S. 8067  
 Grankina, Z. A. 9924  
 Granstaff, E. L. 3255  
 Grant, E. A. 105, 106  
 Grant, J. E. 10783  
 Grant, M. N. 4842, 7935  
 Grant, R. 9745  
 Grant, W. F. 472, 473, 1291, 5585  
 Gras, M. 2873  
 Gras, M. A. 1860, 1865, 2964, 3959  
 Grasselly, C. 1435, 3564  
 Grassert, V. 3318, 6323  
 Grassi, G. 6477  
 Grati, M. I. 905, 3710, 4639, 6657  
 Grati, V. G. 905, 3710, 4639, 6657  
 Grau, C. R. 11173  
 Grau, I. 8006  
 Graves, B. 6291  
 Graves, C. 10497  
 Graves, C. R. 2079, 2717, 10483  
 Gray, A. R. 2614  
 Gray, D. 6660  
 Gray, W. 5425  
 Greaves, A. 2576  
 Greber, R. S. 7177  
 Grechka, I. V. 6971  
 Greco, I. 7491  
 Grecu, C. 1940  
 Green, A. G. 5236  
 Green, D. E. 10141  
 Green, D. M. 3818  
 Green, G. J. 1852, 5821, 6884, 9491  
 Green, J. 9126, 9127  
 Green, J. M. 5840, 7883, 11135  
 Green, V. E., Jr. 2421, 8369  
 Green, W. L. 1260  
 Greenhagen, B. E. 2286, 8302  
 Greenhagen, B. S. 2286  
 Greenshields, J. E. R. 8270  
 Greenway, H. 68  
 Greenwood, P. B. 8323  
 Greger, H. 3490  
 Gregg, E. C. 8383  
 Gregg, T. G. 3811  
 Gregory, E. J. 6708  
 Gregory, P. 285, 4343  
 Greider, R. 8278  
 Gremminger, U. 7543  
 Grendčík, M. 8763  
 Gressel, J. 7441  
 Gresshoff, P. M. 463, 1285  
 Grewal, G. S. 878, 2331  
 Grewal, R. K. 1838  
 Greyling, B. C. 6320  
 Greyson, R. I. 1131, 6044  
 Grib, O. M. 8841  
 Grib, S. I. 6, 2024, 7100, 7103  
 Gridi-Papp, I. L. 10705, 10723  
 Gridnev, A. K. 3758  
 Grier, S. L. 7076, 8065  
 Grierson, W. 3567  
 Griesbach, J. 6528  
 Griesbach, R. J. 4787  
 Griffin, G. J. 10830  
 Griffing, B. 1622, 4131  
 Griffith, R. L. 4349  
 Griffiths, D. W. 941  
 Griffiths, E. 3960  
 Griggs, M. M. 10960  
 Grigorov, I. 6512  
 Grigorov, Y. 6512  
 Grigoryan, E. M. 10518  
 Grigoryan, G. A. 6661  
 Grimblatov, V. M. 10333, 10334  
 Grimbly, P. E. 916, 11023  
 Grimes, L. W. 7809  
 Grimm, G. R. 3568  
 Grinberg, E. G. 9215, 9236  
 Grinevich, N. K. 6920  
 Grintsev, Yu. M. 10069  
 Grisenko, G. V. 3076  
 Grishin, M. A. 461  
 Grison, C. 1306  
 Gritsaichuk, V. V. 790  
 Gritsyuk, V. N. 7312  
 Gritton, E. T. 3776, 4723, 7781  
 Grizo, V. A. 3952  
 Grodzinskiĭ, D. M. 7092  
 Grogan, C. O. 1926  
 Grogan, R. G. 8528  
 Groleau, Y. 10773  
 Gromova, B. B.-O. 3871  
 Gromová, Z. 8740  
 Gronek, M. 1440  
 Gronowicz, Z. 8291, 8292  
 Gross, D. 6038  
 Gross, D. F. 5176  
 Gross, F. 269, 1126  
 Grosser, J. 3069  
 Groth, J. V. 4817, 4904, 11105  
 Grout, B. W. W. 497, 2613  
 Grover, I. S. 2029, 2030, 8358, 10538  
 Grover, R. K. 71  
 Groza, H. 8966, 9777  
 Gruis, J. T. 6237  
 Grumeza, C. 5258  
 Grun, P. 1314, 7316  
 Gruntsev, Yu. A. 7084  
 Grunwald, C. 7778  
 Gruppe, W. 1427, 2525, 4550  
 Gruys, P. 2774  
 Gryb, S. I. 2024  
 Grzelak, K. 6206  
 Grzesik, H. 7977  
 Grzywacz, A. 4590  
 Gu, M. G. 4026, 4968  
 Gu, M. K. 10513  
 Gu, S. R. 1967, 2659  
 Guan, C. Y. 5370  
 Gubanova, N. G. 529  
 Gubareva, N. K. 1047, 7903  
 Gubernator, V. S. 10515  
 Gubiš, V. 1275  
 Gubko, V. N. 9270  
 Gubler, W. D. 8528  
 Gudakova, L. M. 6568  
 Gudinova, L. G. 9507  
 Gudkova, G. N. 9613  
 Guerra Sanz, J. M. 9071  
 Guerrero, J. M. 3416  
 Guerriero, R. 4525  
 Guevarra, A. 6806  
 Guglielmetti, H. 1318  
 Guh, J. O. 1415  
 Gui, Y. L. 1967, 2536  
 Guida, A. N. 8773, 10350  
 Guillaume, J. B. 9751  
 Guillaumin, J. J. 993  
 Guillemant, P. 3858  
 Guillemet, F. B. 7579  
 Guillot, R. 3607  
 Guillot-Salomon, T. 10370  
 Guimaraes, E. P. 4199  
 Gukasyan, L. A. 9089  
 Gukov, B. V. 10024  
 Gulamiryan, R. S. 10008  
 Gulamov, M.-K. K. 5295, 9004  
 Gulamova, R. Z. 7391  
 Gülcán, R. 3509  
 Gullord, M. 7009  
 Gulya, T. J. 8310  
 Gulya, T. J., Jr. 4063, 5010  
 Gulyaev, G. V. 2926  
 Gulyaeva, E. M. 805, 2562, 7630  
 Gulyaeva, Z. B. 7914  
 Gulzar Ahmad Khan 3436  
 Gunn, R. E. 6028, 6029, 9782  
 Gunny, E. 10908  
 Günzel, G. 3884  
 Guo, L. J. 4968  
 Guo, Z. S. 1967  
 Gupta, A. K. 1838, 4541  
 Gupta, A. P. 8044  
 Gupta, D. 3056  
 Gupta, D. D. K. 373  
 Gupta, D. K. 9286  
 Gupta, D. N. 6372  
 Gupta, G. K. 9108  
 Gupta, H. C. 2711  
 Gupta, H. O. 7064  
 Gupta, K. 2157  
 Gupta, K. K. 7797  
 Gupta, K. O. 1605  
 Gupta, M. P. 10707  
 Gupta, M. R. 9141  
 Gupta, N. 8337  
 Gupta, O. P. 4541  
 Gupta, P. C. 10003, 10249  
 Gupta, P. K. 1882, 2706, 3632, 4110, 7756, 10745  
 Gupta, R. 10745, 10838  
 Gupta, R. B. L. 7117, 8985  
 Gupta, R. R. 1073, 2887, 3901, 3934, 8779  
 Gupta, R. S. 3065  
 Gupta, S. C. 7602, 10754  
 Gupta, S. K. 8374  
 Gupta, S. N. 9003  
 Gupta, S. P. 3739  
 Gupta, V. K. 3148, 4395  
 Gupton, C. L. 4437, 5347  
 Gurdeep Kaur 9226, 9235  
 Gurdev Singh 1809, 6896  
 Gurdip Singh 1606, 2331  
 Gurdip Singh Brar 3459  
 Gur'ev, B. P. 6051, 7024, 7027, 7028  
 Gur'eva, A. V. 3859  
 Gur'eva, I. A. 7025, 7027, 7028  
 Gurevich, L. I. 9808  
 Gurieli, O. A. 7960  
 Gurinovich, O. I. 11103  
 Gurjit Singh 8206  
 Gurnade, J. C. 1075  
 Gururaja Rao, M. R. 6353  
 Guseĭnova, L. A. 3359  
 Guseĭnova, S. G. 248, 10444  
 Gusella, J. F. 2719  
 Guseva, K. A. 1906, 5060  
 Guseva, N. N. 3871, 4387  
 Gus'kov, E. P. 10541  
 Gus'kova, L. A. 7345  
 Gusmão, L. B. 10281, 10282, 10523  
 Gusta, L. V. 6203  
 Gustafson, J. P. 1108, 1884, 1885, 7978, 7979, 7980  
 Gustafsson, Å. 6850  
 Gustafsson, M. 3661, 7693, 9403  
 Gustavsson, I. 7693  
 Gutek, L. H. 10623  
 Gutenmaher, P. 5658  
 Guthrie, W. D. 3082, 5012, 6066, 8063  
 Gutiérrez, C. 2784, 9351  
 Gutsalyuk, T. G. 8524  
 Gutsulyak, E. K. 577  
 Guttmann, S. I. 657  
 Guy, P. 448, 7279  
 Guzman, L. J. 4155  
 Gvasaliya, V. P. 10215  
 Gvozdenko, T. M. 918  
 Gvozdkov, A. I. 4595, 8474  
 Gwynn, G. R. 603, 1368, 1369, 3433, 4438  
 Gyamfi, M. M. O. 6428  
 Györfly, B. 8794  
 Gyunter, V. R. 4650  
 Ha, Y. W. 305, 3113  
 Habbén 3695  
 Haber, T. 7985  
 Habětinek, J. 10091  
 Habib, A. F. 1414, 1469, 2406, 6735  
 Habib Ahmad 6894  
 Habib-ul-Rahman Mian 6086  
 Habib-ur-Rehman 5812  
 Habibur Rehman 5812  
 Häbjörg, A. 2188, 2190, 2563  
 Habyarimana, J. N. 8797  
 Hachinohe, M. 6392  
 Hacker, J. B. 6231  
 Hackerott, H. L. 3239  
 Hadač, E. 3780  
 Hadačová, V. 3780, 5705  
 Haddad, N. I. 11189  
 Hadjichristodoulou, A. 6956  
 Hadlaczky, G. 4813  
 Hadley, B. A. 5396  
 Hadley, P. 5710, 5711  
 Hafeez-Ullah Rana 7376  
 Hafiz, M. I. H. 5956, 5957, 5958, 5959



- Hafiz Muhammad Ilyas 5956,  
5957, 5958, 5959  
Hafiz Muhammad Ilyas Hafiz  
5956, 5957, 5958, 5959  
Häfliger, E. 9523  
Hagberg, A. 1668, 9403  
Hagborg, W. A. F. 1839  
Hagedorn, D. J. 3776, 4691,  
5647, 6701, 11078  
Hagel, G. T. 11108  
Hageman, R. H. 3041, 4949,  
4974, 4975  
Hagemann, R. 6011  
Hagen, G. 268  
Hagerman, A. E. 5639  
Hagima, I. 1791  
Hagiwara, K. 8443  
Hague, D. R. 10558  
Hahn, B. H. 4333  
Hahn, D. 10580  
Hahn, S. K. 4420, 6395, 7430,  
9849  
Hair, B. 6317  
Haji Tinggal, S. 7671  
Hajós, L. 9548  
Hajra, N. G. 1216, 2145  
Hak, S. S. 3176  
Hake, S. 9581  
Haki, J. M. 5962  
Hakim, M. R. 4036  
Halász, E. 9755  
Hale, M. G. 10830  
Halemani, H. L. 9583, 9584  
Halinar, J. C. 5546  
Hall, C. B. 8553, 8557  
Hall, C. V. 9250  
Hall, F. R. 5430  
Hall, I. V. 753, 8428  
Hall, M. R. 8584  
Hall, N. T. 5487  
Hall, S. B. 10322, 10323  
Hall, T. C. 7742  
Hall, T. J. 6668  
Hall, W. E. 4119  
Hallauer, A. R. 4010, 4011,  
7022  
Hallock, D. L. 9900  
Halloran, G. M. 1807, 5225,  
8956  
Halsey, L. H. 5601  
Halterlein, A. J. 3736  
Halvorson, A. D. 9843  
Ham, G. E. 5697  
Ham, Y. S. 241, 242, 350,  
635, 1121, 3029, 3477, 3746,  
4226  
Hamamura, H. 589, 618,  
9852, 10774  
Hamblin, J. 6897  
Hamdani, A. R. 7213  
Hamdy A. Saber 4668  
Hamedata Banu Quraish 2444  
Hameed, S. F. 6778  
Hamel, A. 6819  
Hamid, A. 9850  
Hamid, M. A. 8190, 8196  
Hamill, A. S. 4071  
Hamilton, M. G. 10701  
Hamilton, N. R. S. 2237  
Hamilton, R. A. 7578  
Hammann, H. 1939, 6430  
Hammes, P. S. 7923  
Hammett, H. 8299  
Hammond, J. J. 1354, 6444,  
8310  
Hammond, N. 4999  
Hammons, R. O. 1412, 5391,  
5394  
Hamon, S. 8353  
Hampton, J. G. 2059  
Hampton, R. O. 4755  
Hamza, M. 11086  
Hamza, N. 1520  
Han, C. S. 7446, 7449  
Han, H. 1786  
Hanamashetty, S. I. 3581  
Hanchey, P. 2825  
Hanchinal, R. R. 6735  
Hancock, J. E., Jr. 6537  
Hancock, J. G. 6453  
Handa, A. K. 9038  
Handa, D. K. 829, 933  
Handke, S. 2740  
Handly, J. V. 8623  
Handojo, H. 5323  
Handro, W. 6410  
Hanelt, P. 1650  
Hang, A. 5032, 7098, 8100,  
8835  
Hang, L. 8813  
Hänichen, T. 431  
Haniuda, T. 9930, 9931  
Hankin, L. 1384  
Hanks, R. J. 67  
Hanmantha Rao, P. 1227  
Hanna, H. Y. 5630  
Hanna, M. R. 3255, 6271,  
9745  
Hanna, W. W. 3135, 6114,  
6201, 6228, 8129, 9633,  
10559, 10560  
Hannah, L. C. 4040, 4984,  
6009, 6738  
Hannan, R. M. 11188  
Hanneman, R. E., Jr. 6298,  
6302, 6307, 6308, 6313,  
7319  
Hanny, B. W. 555, 5308,  
10729  
Hanold, D. 1  
Hanson, G. P. 5409  
Hanuman Singh 208  
Hanumantha Rao, Y. 6746  
Hanumantharaya, M. R. 718  
Hanway, J. J. 10141  
Hao, S. 1772, 1786  
Hapase, D. G. 10756  
Haq, M. S. 347  
Haque, F. 1584  
Haque, M. 7402  
Haque, M. A. 3194, 3195  
Haque, M. N. 319  
Haque, M. S. 8194  
Haque, Q. A. 8190  
Harada, H. 4441, 10794  
Harada, R. 6513  
Harada, T. 3420, 5563  
Harahap, A. 391  
Harahap, Z. 6140, 7215  
Harberd, N. 8858  
Harborne, J. B. 2663  
Hardacre, A. K. 3046, 6053  
Hardas, M. W. 7525  
Hardenburg, R. E. 4515  
Harder, D. E. 5972, 6884,  
7991  
Harder, H. J. 972  
Hardie, A. R. 1112  
Hardin, R. T. 5241  
Harding, H. 8124  
Hardman, J. A. 6604  
Hardwick, R. C. 5783, 6721,  
6722  
Hardy, R. W. F. 11120  
Hargitay, L. 8367, 9892  
Hargreaves, A. J. 5469  
Hargrove, T. R. 6139  
Hari Pal 8117  
Hari Singh 2412, 4035  
Harinarayana, G. 7121, 9066  
Harivandi, M. A. 5166  
Harjung, M. K. 7579  
Harkett, P. J. 6315  
Harkot, W. 6216  
Harlan, J. R. 1155, 3730, 4269  
Harman, G. E. 5706  
Harmat, L. 10859  
Harmati, I. 5905  
Harmon, S. A. 5272  
Harms, C. T. 3825, 10045  
Harn, C. 4495  
Harney, P. M. 8558, 8559  
Harper, D. 4934  
Harper, D. C. 3010  
Harper, J. E. 8603  
Harrell, D. C. 1334, 1336,  
1337  
Harries, H. C. 6525  
Harris, H. 7619, 9346  
Harris, H. B. 1580, 5069  
Harris, L. 7769  
Harris, M. K. 7857  
Harris, P. 9389  
Harrison, H. E. C. 10982  
Harrison, P. 6236  
Harrison, S. A. 11137  
Harrison, T. J. 10493  
Hart, E. R. 1352, 10029  
Hart, G. E. 4845, 5851, 10290  
Hart, R. 479  
Hart, R. H. 7277  
Harten, A. M. van 1647  
Hartigan, R. H. 8133  
Hartleb, H. 4419  
Hartman, B. J. 3242, 4291,  
7289  
Hartman, G. P. 7868, 9843  
Hartmann, W. 3020, 8791  
Hartung, R. C. 4736, 10140  
Hartwig, E. E. 1595, 6753,  
11166  
Harvey, B. L. 4095, 4096,  
5800  
Harvey, H. J. 2237  
Harvey, R. G. 1112, 2862,  
2863, 3275  
Harvey, T. L. 3239, 4919,  
9492  
Harville, B. G. 1982  
Haryono, S. K. 5714, 8628  
Haş, I. 1940  
Hasan, A. 2764  
Hasan, Z. 1607  
Hasegawa, H. 10535  
Hasegawa, P. M. 628, 9038  
Hasegawa, T. 6392  
Hasenkampf, C. A. 5289, 6347  
Hashim, I. 3493  
Hashim, M. 5671  
Hashimoto, M. 5358  
Hasimoto, M. 5358  
Haskins, F. A. 4243, 6121,  
6126, 7147, 8140, 8248,  
8267, 9625, 9743  
Haslam, M. 4351  
Haslemore, R. M. 1902, 2957  
Hasman Azis 1468  
Hassaballa, E. A. 8726  
Hassaballa, E. S. 8059, 8801,  
8802  
Hassan, A. A. 9283  
Hassan, M. A. 9032  
Hassan, R. 9546  
Hasson, E. 7787  
Hata, T. 1376  
Hatchett, J. H. 4830, 8772  
Hattingh, M. J. 3718  
Hau, B. 7377, 7378, 9809  
Haunold, A. 5367  
Haupt, W. 3854  
Hauptli, H. 6199  
Haus, T. E. 8078  
Häuser, H. 8088  
Havelka, U. D. 11120  
Haverbeke, D. F. van 6589  
Havličková, H. 8620  
Havránek, P. 1377  
Haware, M. P. 2752, 3792,  
3793, 11075  
Hawkes, J. G. 493, 995, 1683,  
2251, 6305, 6322, 7321,  
7333  
Hawthorne, B. T. 2626  
Hawthorne, P. L. 711, 6511  
Hawtin, G. 6678, 6682, 6685,  
6689  
Hawtin, G. C. 3791, 4663,  
4670, 4676  
Hay, J. M. 2187  
Hayakawa, M. 8051  
Hayakawa, T. 6155, 10608  
Hayashi, H. 7649, 7650  
Hayashi, J. 1149, 8075  
Hayashi, M. 7465  
Hayashi, T. 6383  
Hayat Ram 1022  
Hayati, J. 4659  
Hayden, D. B. 1983, 1990,  
4033  
Haydu, Z. 9632  
Hayes, A. G. 1368, 1369  
Hayes, R. M. 3096  
Haynes, F. L. 8283  
Haynes, F. L., Jr. 7331  
Haynes, P. H. 2360  
Hayward, C. F. 124  
Hayward, M. D. 5185, 6231,  
6861  
Hazarika, G. N. 6940  
Hazarika, M. H. 2658  
Hazel, W. J. 3604  
Hazem, T. 3767  
He, J. Q. 2107  
He, M. Y. 1772, 1786  
Heagle, A. S. 2619  
Hearn, C. J. 3575, 5456  
Heath, M. C. 8585  
Heather, W. A. 4583, 6577  
Heathman, E. S. 6984  
Heaton, T. C. 4478, 5387  
Heberle-Bors, E. 1680, 4440  
Heckel, D. G. 5753  
Hecker, R. J. 574, 6382  
Heckler, J. C. 7181  
Hedges, A. 7332  
Hedin, P. A. 9171  
Hedrick, P. W. 2021, 3813,  
5736  
Heen, A. 7867  
Heenan, D. P. 6776  
Heerma, W. 10832  
Hefendehl, F. W. 4768  
Heffernan, D. F. 11029  
Hegde, D. M. 9583, 9584  
Hegde, R. K. 1416, 1864,  
2100, 3968, 3969, 4893,  
5086  
Hegwood, C. P., Jr. 5501,  
6553  
Heichal, O. 7787  
Heichel, G. H. 444, 3252,  
6230  
Heikal, M. M. 5642  
Heiken, G. 9405  
Heimann, W. 4570  
Heinrichs, D. H. 5213  
Heinz, D. J. 1359, 7412  
Heiser, C. B. 1420, 9070  
Heiser, D. 3858  
Hejgaard, J. 10546  
Hellmund, K. J. 868  
Helm, J. L. 5840, 7883, 11129,  
11135  
Helms Jørgensen, J. 8869,  
9617  
Helsel, D. B. 10402  
Heltmann, H. 9919, 9920  
Hely, F. W. 2801  
Hempel, K. 6255  
Henderson, I. F. 6223, 6259  
Henderson, R. G. 3425, 3446  
Henderson, W. R. 4653  
Hendre, R. R. 7577  
Hendrikx, A. 9976  
Hendrix, J. W. 616  
Heneberg, R. 7773  
Heneen, W. K. 7016  
Henfling, J. W. D. M. 5261  
Henis, Y. 4655  
Henjum, K. I. 6230  
Henneberry, T. J. 540  
Hennig, U. 8702  
Henning, W. 6497  
Henninger, M. R. 6291, 8278  
Henry, D. S. 10677  
Henry, J. 4559  
Henry, R. J. 2600  
Henry, S. 2290, 3351  
Henry, Y. 3937  
Henshaw, G. G. 497, 8284  
Henshaw, J. N. 8055  
Henson, J. F. 7939  
Henson, M. A. 8326, 10767  
Hentrich, W. 8868  
Hentschel, G. 2650  
Henzell, R. G. 7177  
Hepperly, P. R. 3768, 10150,  
11176  
Herath, H. M. W. 4492, 6803,  
8633  
Heringa, R. J. 6680  
Hermansen, J. E. 5053, 6104  
Hermelin, T. 1025  
Hermida Laffitte, C. 8920  
Hermesen, J. G. T. 1307, 1308,  
2263, 6310, 9385  
Hernalsteens, J.-P. 2777  
Hernández-Jasso, A. 4385,  
10720  
Hernandez, P. 10050  
Hernandez, T. P. 5623, 5630,  
8299



- Hernández X., E. 6716  
Herrera Isla, L. 10615, 10887  
Herrero, M. P. 6033  
Herrington, R. W. 5971  
Herrmann, K. 6497  
Hershey, C. H. 4072  
Hertel, J. M. 8136  
Hertz, L. B. 2478, 5425  
Herzfeld, F. 6081, 7811  
Herzog, H. 6696, 10329  
Herzog, K. 7425, 10763  
Hesketh, J. D. 3429, 3430  
Heslop-Harrison, J. 18, 10625  
Heslop-Harrison, Y. 18  
Hess, D. 1612  
Hess, R. 8786  
Hesse, F. W. 568  
Hesse, P. S. 848  
Het Ram 4131, 7143, 8883  
Héthelyi, E. 10832  
Heu, H. 357  
Heu, M. H. 393, 1222, 1226, 2150, 3181, 3199, 7216  
Hewett, P. D. 3127  
Hewitt, E. J. 84  
Heybroek, H. M. 2571  
Heyland, K.-U. 198  
Heyn, C. C. 7307, 8268  
Heyn, F. W. 1395, 1401, 5569  
Heyne, E. G. 1089  
Heytler, P. G. 11120  
Hiatt, J. A. 455  
Hibberd, K. A. 10439  
Hibino, C. 2822  
Hicks, R. R., Jr. 8479  
Hida, K. 6605  
Hidalgo, L. 4563, 10931, 10932  
Hidalgo Maynar, F. 9746  
Hidayat Ali 7380  
Hidayat, R. 4710  
Higashi, T. 2115  
Higgins, R. K. 4286  
Higgins, V. J. 7959  
Hiirsalmi, H. 10904  
Hikmat A. Ali 5373  
Hildebrand, D. F. 5690, 5691, 6769, 6770  
Hildebrand, G. L. 9076, 9898  
Hilder, T. B. 6256, 6257  
Hill, B. H. E. 5503  
Hill, H. J. 11153  
Hill, J. 5807, 10319  
Hill, N. S. 3292  
Hill, R. D. 1115  
Hill, R. G., Jr. 10903  
Hill, R. R., Jr. 3216, 5768, 6263, 7296, 8549, 10657  
Hill, W. G. 3, 5730  
Hille Ris Lambers, D. 3165, 5111, 5112  
Hillel, J. 3805  
Hillerislambers, D. 3165  
Hillison, T. 4042, 7026  
Hilu, K. W. 3139, 7078  
Hims, M. J. 3308  
Hinata, K. 854, 858, 864, 1532, 2609, 6614, 6616  
Hinojosa, G. 1499  
Hinson, K. 8597, 11149  
Hinze, G. 6913  
Hirai, M. 3337  
Hiraiwa, S. 4718, 8599  
Hirano, H. 8418  
Hiratsuka, S. 10870  
Hiremath, K. G. 927, 1563, 6669  
Hiremath, S. R. 988, 2761, 9337  
Hirose, T. 9092  
Hirota, S. 9269  
Hirota, Y. 2848  
Hirsch, P. J. 7500  
Hirsinger, F. 4490, 4491  
Hirunyupakorn, V. 5108  
Hiscox, J. D. 2743  
Hittle, C. N. 9314  
Hizume, M. 791, 3658  
Hjortsholm, K. 8861, 10239, 10240, 10241  
Hlava, B. 6799  
Hlaváčková, Z. 2396  
Hnda, R. S. 2072  
Ho, C. C. 2107  
Ho, C. P. 9671  
Ho, C. Y. 2458  
Ho, K. M. 4083, 6070  
Ho, M. Y. 1772, 1786  
Ho, T. H. D. 7934  
Ho, Y. T. 5727, 9099  
Hoang, J. U. 3634  
Hobbs, P. R. 9656  
Hobbs, S. L. A. 7786  
Hobe, M. A. 11172  
Hoberg, E. 3885, 8700  
Hoberg, W. 2859, 7862  
Hoch, H. C. 1600  
Hockett, E. A. 1167, 4102, 5023, 8114, 8115, 9612, 10516  
Hodgdon, A. 8097  
Hodgdon, A. L. 5030, 8842  
Hodge, T. P. 3221  
Hodgkin, T. 3685, 4613, 6624  
Hoes, J. A. 6364, 7496, 8312  
Hofbauer, J. 1273  
Hoff, R. 1513  
Hofferek, H. 1171  
Hoffman, D. 10664  
Hoffman, J. C. 5648  
Hoffman, K. M. 9160  
Hoffman, L. D. 9510  
Hoffman, L. L. 7872  
Hoffmann, F. 3671, 4463  
Hoffmann, G. M. 3597  
Hoffmann, J. A. 5837  
Hoffmann, P. 4617  
Hofman, T. B. 10637  
Hogan, G. D. 7240  
Hogan, W. H. 4427  
Hogarth, D. M. 5324, 7411  
Hogenboom, N. G. 908, 2645  
Höhler, B. 1086, 3916  
Hokaguchi, N. 7436, 9851  
Hoki, M. 2152  
Holbrook, F. R. 516, 6335  
Holden, L. R. 1621, 2778  
Holden, M. 5785  
Hollaender, A. 5787  
Holland, N. S. 7545  
Holland, R. 1902  
Hollander, J. den 3200  
Hollins, T. W. 5817  
Hollis, A. B. 7732  
Hollis, J. P. 4364, 4365  
Holloway, H. L. O. 6853  
Holman, R. T. 5622  
Holmes, E. B. 9848  
Holobradá, M. 1969  
Holsters, M. 2777  
Holt, E. C. 4107, 8244  
Holt, L. M. 5901  
Holt, N. W. 982  
Holtea, I. 7607  
Holtkamp, R. H. 8259  
Holubčík, M. 4592  
Holubowicz, T. 8393  
Holzworth, L. K. 6232  
Honda, F. 758  
Hondelmann, W. 1655, 4324  
Hong, B. H. 7889  
Hong, C. C. 5457  
Hong, E. H. 1579, 3746, 3757  
Hong, K. H. 8434  
Honma, S. 848, 944, 1541, 3682, 5581, 5592, 5597, 6467, 8523, 9266, 11002  
Honne, B. I. 1245  
Hooda, M. S. 2064  
Hooda, R. S. 5319  
Hooker, A. L. 3074, 4065, 6059  
Hookstra, G. H. 4144  
Hoopes, R. W. 2258, 6301  
Hopkins, A. M. 9397  
Hopkins, W. G. 1983, 1990, 4033  
Hoppe, J. H. 2864  
Hoppe, P. 3101  
Hopping, M. E. 2538, 2626  
Hoq, Q. A. 8196  
Hoque, M. S. 11130  
Hora, B. 10196  
Horak, A. 5886  
Horber, E. K. 4290  
Horčín, V. 3592  
Hori, M. 8199  
Hori, S. 10535  
Horie, M. 11163  
Horino, O. 6176  
Horkay, E. 9831  
Horn, N. L. 711, 6511  
Horn, R. S. 5625, 9274  
Hornby, C. A. 4648, 6654  
Horner, E. S. 3254, 8063  
Horner, G. M. 7796  
Horton, P. 9043  
Horton, R. R. 11022  
Hortyński, J. A. 1477  
Horváth, I. 5814, 6054  
Horváth, S. 658  
Hoseney, R. C. 6117  
Hoser-Krauze, J. 1543, 3683  
Hosfield, G. L. 7745  
Hosford, R. M., Jr. 5923  
Hoshino, M. 5183, 5184  
Hoshino, T. 1194, 4158  
Hoskinson, P. E. 2304, 6352  
Hoslin, R. 8465  
Hosny El-Lakany, M. 3631  
Hosoda, T. 856  
Hosokawa, S. 601  
Hossain, A. 4219  
Hossain, M. 2323  
Hossain, M. A. 9390  
Hossner, L. R. 9649  
Hotta, Y. 17  
Hough, L. F. 1436  
Houman, M. 9372  
House, L. R. 4114  
Houser, J. A. 8390  
Housman, D. E. 2719  
Hovin, A. W. 3227, 5197, 6230, 7234, 7266  
Howard, C. M. 4554, 5477  
Howarth, R. E. 3243, 6242  
Howell, D. R. 6984  
Howell, G. S. 3612  
Howell, W. E. 4529  
Howey, A. E. 3991  
Howland, A. K. 6395  
Hoxie, R. P. 10411  
Høyer-Hansen, G. 7091  
Hoyert, J. H. 7433  
Hraška, Š. 6955, 9468  
Hrishi, N. 5332  
Hristakes, P. A. 10085  
Hristov, L. 6529  
Hristova, I. 10065, 11001  
Hrušková, H. 1273  
Hsalo, J. Y. 2584  
Hsi, D. C. H. 5274  
Hsi, T. Y. 1786, 2937  
Hsi, Y. L. 9002  
Hsia, C. A. 8834  
Hsia, W. S. 3368  
Hsiao, C. M. 386  
Hsieh, C. S. 3151  
Hsieh, H. A. 522  
Hsieh, I. C. 1107  
Hsieh, J. S. 3151  
Hsieh, S. A. 522, 7364  
Hsieh, S. C. 6167, 6168, 8177  
Hsing, T. I. 2107  
Hsing, Y. I. 663, 5756, 5757, 5760  
Hsu, C. 4044  
Hsu, C. Y. 9040  
Hsu, F. H. 2001, 4707  
Hsu, F. Y. 2312  
Hsu, H. E. 9099  
Hsu, H. M. 1231  
Hsu, H. T. 717  
Hsu, I. 2726  
Hsu, S. M. 1231  
Hsu, S. Y. 9024  
Hsu, T. H. 5142  
Hsu, T. W. 3109  
Hsu, T. Y. 1772, 1786  
Hsu, Y. F. 1703, 4003  
Hsu, Y. J. 5126  
Hsu, Y. K. 4853  
Hsu, Y. M. 8300  
Hu, C. 9671  
Hu, H. 2937, 9355  
Hu, H. Y. 3907  
Hu, M. H. 1222, 1226, 2150, 3181, 3199  
Hu, S. I. 2911  
Hu, S. Y. 2911  
Hu, W. W. L. 9531, 10438  
Hu, X. Y. 3907  
Huamán, Z. 2252  
Huang, C. 1665  
Huang, C. C. 9000  
Huang, C. H. 4968, 8814  
Huang, C. S. 348, 3180, 5135, 8174, 8176  
Huang, C. Y. 4197, 5761, 5762  
Huang, G. 1077, 3951  
Huang, H. 6542  
Huang, H. S. 2146, 9674, 9676  
Huang, J. Q. 9000  
Huang, J. S. 9130  
Huang, J. X. 4968  
Huang, R. H. 2025  
Huang, S. C. 4458, 9671  
Huang, S. Q. 4458  
Huang, S. Y. 386  
Huang, Y. C. 1958, 2006, 2007  
Huang, Z. 1665  
Huang, Z. S. 348, 3180  
Huang, Z. Y. 4197, 5761, 5762  
Hubbeling, N. 11076  
Hubbell, J. N., Jr. 3849  
Huber, D. M. 260, 1992  
Huber, S. C. 6944  
Huber, W. 3301  
Huczakowski, J. 2723, 11139  
Hudson, M. 7070  
Hudson, L. W. 5712  
Huet, J. 3503  
Huett, D. O. 2282  
Huettel, M. D. 4776, 4777  
Huffaker, R. C. 5882  
Hughes, I. K. 7340  
Hughes, J. C. 4347  
Hughes, J. L. 214, 1880, 1890  
Hughes, W. G. 9553, 9554, 9555  
Huglin, P. 3607  
Huguet, L. 7279  
Hühn, M. 7, 2582, 5769  
Huijberts, N. 4626  
Hujdurević, M. 7740  
Hull, J., Jr. 10868  
Hulse, J. H. 5720  
Humairi, R. 5094  
Hume, D. J. 4725, 6762  
Humphreys, M. W. 427, 9731  
Hundal, P. S. 3559  
Hung, C. C. 2361  
Hunger, R. M. 6328  
Hunnus, W. 505, 1317, 4331, 9792  
Hunt, A. S. 10020  
Hunt, K. L. 3225  
Hunt, L. A. 1751  
Hunt, O. J. 434, 3242, 3254, 4291, 7289  
Hunter, A. G. 7619  
Hunter, B. G. 1943  
Hunter, J. H. 4341  
Hunter, M. N. 6777  
Hunter, R. B. 4047, 5008, 6060, 6061, 6062  
Huntley, J. P. 8472  
Huokuna, E. 10672  
Hur, S. N. 6765  
Hurd, R. G. 7841  
Hurley, R. H. 5163  
Hurter, N. 2488  
Hurwitz, B. 10938  
Huschenbett, G. 8702  
Husejinov, G. I. 7688  
Húska, J. 2958  
Huss-Danell, K. 3630  
Huss, H. 4928  
Hussain, F. 6138  
Hussain, M. A. 9390  
Hussain, N. 6794  
Hussain, S. I. 6634  
Hussain Sahib, K. 4156, 4165, 4170  
Hussain, T. 2309  
Hussein, A. S. H. 5044  
Hussein, F. 7576  
Hussein, K. R. F. 7502  
Hussein, M. A. 4041



- Hussein, M. M. 4041  
Hussein, S. A. 6523  
Hussein, T. A. 9560  
Hussey, G. 5560  
Hussey, M. A. 4107  
Huszár, J. 1371, 5342  
Hutasoit, G. F. 4407  
Hutchinson, J. 422, 5722, 5974  
Hutchinson, T. C. 4246  
Hutchison, D. J. 3568  
Hutson, R. A. 3719  
Hüttermann, A. 3738  
Hutton, E. M. 6822  
Huystee, R. N. van 7513  
Hwang, C. S. 4987  
Hwang, J. 6575  
Hwang, J. K. 9291  
Hwang, J. W. 3634  
Hwang, S. C. 5483  
Hwang, Y. H. 1579, 3746, 4723, 10154  
Hyer, A. H. 552, 9824  
Hymowitz, T. 4719, 5690, 5691, 6769, 6770, 8601, 11142  
Hynes, D. L. 7486  
Hyun, J. O. 1511  
Hýža, V. 1764  
I, E. J. 385  
Ibekwe, G. O. 3410  
Ibizzate, J. 7409  
Ibragimov, Sh. I. 2303  
Ibrahim, A. A. 937  
Ibrahim A. Desouki 2686  
Ibrahim, A. M. 8567  
Ibrahim A. M. Desouki 2686, 4677, 5641  
Ibrahim, I. A. 4892  
Ibrahim, I. K. A. 4392  
Ibrahim, K. M. 2182  
Ibrahim, M. 6674, 7524  
Ichii, M. 5116  
Ichinohe, K. 8905  
Idzikowska, K. 6087  
Iezzoni, A. F. 5610, 7685  
Ifteni, L. 7551  
Ifthikhar Ahmad Khan 7375, 8991, 8992  
Igarashi, S. 2981  
Iglesias, J. 8512  
Ignat, V. 5258  
Ignatova, S. A. 221, 5947  
Ignatova, S. I. 10980  
Iheagwam, E. U. 6620  
Ihrke, C. A. 4970  
Iida, S. 6707  
Ijaz Ahmad Khan 7375  
Ikeda, F. 3573  
Ikeda, I. 5451, 9128, 9132  
Ikeda, K. 4730  
Ikeda, M. 1484  
Ikeda, R. 10620  
Ikegami, Y. 9665  
Ikegaya, F. 5169, 6209, 6210, 6211  
Ikehashi, H. 2115, 3166, 3188, 5112, 7199, 8167, 8193, 8200, 10607  
Ikehashi, I. 6187  
Ikramov, Yu. 5305, 9803  
Iksanov, M. I. 4369  
Ilatovskii, V. P. 2423  
Il'chanka, V. P. 3990  
Il'chenko, V. P. 3990  
Ilicevici, S. 9493  
Il'ichenko, V. V. 1727  
Il'ichev, G. A. 9514, 9600  
Il'ichev, Yu. N. 10037  
Ilichevich, Sh. 9493  
Iliev, I. 4894  
Ilieva, E. 6665  
Ilieva, I. 9090  
Ilieva, S. 10190, 10191  
Il'in, V. A. 1172, 2061  
Il'ina, L. B. 162, 2925  
Il'ina, L. G. 10348  
Il'ina, M. G. 7041, 7049  
Il'ina, N. V. 9425, 9609  
Iliarionova, N. P. 6496, 7535  
Il'nitskii, O. A. 9102, 10839  
Iltis, H. H. 1134, 1135  
Ilyas Ahmed 6445  
Ilyas Ahmed, M. 2418, 6445  
Ilyushchenko, V. G. 6879, 8716  
Imada, J. 9129  
Imai, T. 3150, 5118  
Imaki, T. 2124  
Imamaliyev, G. N. 6539  
Imamura, J. 4441, 10794  
Immele, A. 2550  
Impens, I. 2460  
Imran Hassan 2716  
Inaba, A. 6514  
Inaba, H. 7771  
Inafuku, T. 6391  
Inagaki, H. 10152  
Inagaki, M. 8832  
Inagaki, N. 5563  
Inamadar, S. S. 2159  
Inamura, H. 8832  
Inalcatterra, G. 10110  
India, Basic Sciences Committee II, Department of Atomic Energy, Government of India 7816  
India, Central Plantation Crops Research Institute 28  
India, International Crops Research Institute for the Semi-Arid Tropics 2792  
Indiramma, P. 3404  
Indruch, I. 2186, 7229  
Indudhara Swamy, Y. M. 2154  
Ingger, H. 4633, 11026  
Ingham, J. L. 10167  
Ingram, D. S. 2008, 4038, 9239, 10063  
Ingram, K. C. 6811  
Innes, N. L. 5662  
Inokuchi, T. 8418  
Inomata, N. 8514  
Inoue, J. 5129  
Inoue, M. 1697, 1988, 10535  
Inouye, J. 5129  
Inozemtsev, V. V. 428  
Inserra, R. N. 4533, 4658  
Insua Guerra, M. 6375  
International Board for Plant Genetic Resources 2105, 7842  
Intrieri, C. 1426  
Inuzuka, T. 6707  
Inyushin, V. M. 10992  
Ioannides, N. M. 10771, 10772  
Ioannidis, N. M. 10771, 10772  
Iobashvili, D. M. 9157  
Ionescu-Cojocaru, M. 1862, 4908, 5928, 8767  
Ionescu, L. 9107  
Ionescu, V. 9657  
Iordăchescu, O. 6659  
Iordanov, I. 6006  
Iordanov, M. 9267, 9279  
Iordanskii, A. B. 16  
Iqbal, K. M. 5854  
Iqbal, M. S. 6526  
Iqtidar Ahmad 3717, 5828, 6651  
Iraj Amini 1195  
Irañeta, M. 7761  
Iremiren, G. O. 5002  
Irikura, Y. 2357, 7428  
Irizarry, H. 762  
Iruthayaraj, M. R. 551, 1347  
Iruthayathas, E. E. 4492  
Irvine, R. B. 2038, 4095, 4096  
Irwin, J. A. G. 3274, 6254, 8258, 10667, 10668  
Irwin, R. D. 866  
Isaev, R. F. 9482  
Isaeva, L. N. 10030  
Isaïkina, L. D. 4546, 4548  
Isakov, Ya. I. 9647  
Isakov, Yu. N. 1510  
Isakova, M. D. 6500, 10875  
Isbell, V. R. 2086  
Ish Kumar 2151, 8163  
Ishaque A. Memon 1345  
Ishchenko, T. F. 3367  
Ishida, K. 4737, 6772  
Ishida, M. 6514  
Ishiguri, Y. 2823  
Ishiguro, S. 9861  
Ishii, K. 9708  
Ishikawa, T. 589, 9045  
Ishina, G. F. 10352  
Ishiyama, M. 9104  
Ishizumi, K. 6143, 6144, 6145  
Iskakov, N. K. 4272  
Iskenderova, Z. D. 2537  
Islam, A. K. M. N. 2134  
Islam, A. K. M. R. 5851, 6924, 7907, 9450, 10265, 10531  
Islam, A. S. 7402  
Islam Mahmud Khan 3436  
Isleib, T. G. 6456  
Ismachin, M. 4227  
Ismail, M. O. 2293  
Ismailov, K. G. 3360  
Ismailov, R. 1495  
Ismailova, A. Ya. 3357  
Ismailova, R. A. 5302  
Isom, W. H. 1105, 1260  
Israelstam, G. F. 1602, 2743  
Issa, E. 7223  
Istratii, A. I. 2570  
Itabashi, M. 7436  
Italy, Istituto Sperimentale per la Cerealicoltura 3876  
Ital, C. J. 5390  
Ito, I. 1235  
Ito, K. 9275, 10620  
Ito, M. 342  
Ito, N. 8171  
Ito, P. J. 6527, 7578  
Ito, R. 2115  
Ito, S. 10106  
Itoh, S. 10106  
Itria, C. D. 3241  
Ittipe, K. 7597  
Ivakhnenko, A. N. 7023  
Ivakin, A. P. 9276  
Ivanchenko, G. M. 2481, 5429, 7554  
Ivanchenko, G. Z. 2261, 8978, 8980  
Ivanenko, A. S. 1814, 9478  
Ivanenko, E. N. 630  
Ivanko, S. 8822  
Ivannikov, V. F. 2870, 2962  
Ivanov, A. I. 2210, 8257, 9750  
Ivanov, A. S. 5915  
Ivanov, B. I. 4834  
Ivanov, S. M. 5540  
Ivanov, Yu. A. 2894  
Ivanova, E. P. 9944  
Ivanova, G. S. 895  
Ivanova, L. A. 4005  
Ivanova, L. V. 3100  
Ivanova, N. S. 10551  
Ivanova, N. V. 3371  
Ivanova, V. F. 10921  
Ivanović, M. 3067, 5004  
Ivanović, Z. 3037  
Ivbijaro, M. F. 7071  
Ivleva, L. A. 975, 6784  
Ivshin, E. I. 7314  
Iwai, S. 10790  
Iwakiri, B. T. 5511  
Iwanaga, M. 4339  
Iwasa, S. 10995  
Iwasaki, K. 8051  
Iwata, N. 10594, 10599  
Iyama, S. 2847, 2848  
Iyengar, E. R. R. 5137  
Iyer, C. P. A. 9143  
Iyer, R. D. 7442  
Izhar, S. 1004  
Izmailov, R. 5528  
Izumiyama, Y. 8607  
Jaaska, V. 1087, 6964, 9495  
Jabrun, P. L. M. de 6777  
Jackowiak, N. 2276  
Jackson, B. R. 3163, 4192, 5108, 5111, 5113  
Jackson, E. L. 11166  
Jackson, J. C. 6604  
Jackson, L. F. 10367  
Jackson, M. T. 6305  
Jackson, R. C. 6834  
Jackson, W. R. 565  
Jacob, H. 10636  
Jacob, J. A. 2451  
Jacob, S. 2700  
Jacob, V. J. 9051  
Jacobi, W. R. 2564  
Jacobs, E. 1759  
Jacobs, M. 10076  
Jacobsen, E. 2260, 4749, 5251  
Jacobsen, N. 2054, 5048  
Jacqua, G. 2699  
Jacques, A. V. A. 4281  
Jadhav, A. S. 2547  
Jadhav, G. D. 4483  
Jadhav, L. D. 2102, 4169  
Jadhav, R. B. 2102, 4169  
Jafar Nizam 1348  
Jagadishchandra, K. S. 9084, 9085  
Jagannathan, R. 6195  
Jagannathan, V. 3632, 7577  
Jagarlal Sivasubramanian 3153  
Jagathesan, D. 6374, 7416  
Jaggard, K. W. 8325  
Jagirdar, H. A. 7127  
Jai Gopal 2248, 4315  
Jai Prakash 8736  
Jaimini, S. N. 4122, 7898  
Jaimini, S. S. 9010  
Jain, H. K. 1022, 1757, 6742  
Jain, K. B. L. 1762  
Jain, K. C. 4757  
Jain, K. K. 10133  
Jain, M. 7441  
Jain, M. K. 4709  
Jain, R. 1829  
Jain, S. 3234  
Jain, S. C. 10498  
Jain, S. K. 1653, 4301, 4662, 4932, 6198, 6199  
Jain, S. M. 7670  
Jain, V. K. 9662  
Jaisani, B. G. 2382, 3742, 3743, 7461  
Jaiswal, V. S. 733, 5374  
Jaiyesimi, S. T. 9650  
Jákó, N. 5498  
Jalaja, N. C. 7415, 7416  
Jalandoon, R. R. 563  
Jalani, B. S. 1901, 5855, 8641  
Jalilipour, S. H. 9972  
Jambhale, N. D. 991, 2325, 8318  
Jambunathan, R. 2092, 3789, 6792  
James, D. J. 7581  
James, J. H. 583  
James, N. I. 5317  
James, R. V. 1535, 5584  
Jan, C. C. 3905  
Jan-orn, J. 4142  
Jana, M. 9017  
Jana, M. K. 2055, 2056, 7109, 9017  
Jana, S. 1900, 2055, 2056, 5038, 7109  
Janásek, J. 4255  
Janave, M. T. 495  
Janeček, J. 5155  
Jani, S. M. 7487  
Janick, J. 628, 5432, 5777  
Janke, G. D. 4168  
Janković, R. 7596  
Jankowski, F. 7476  
Jankun, A. 5154  
Jánossy, A. G. S. 1986  
Jansen, A. B. 480, 925  
Janssens, M. J. J. 5737, 7807  
Japan, Division of Genetics, National Institute of Agricultural Sciences 1116  
Japan, National Institute of Genetics 2832, 2841  
Jaramillo-Robledo, A. 3448, 4450  
Jargiello, J. 6216  
Jarnail Singh 9235  
Jarnail Singh Sandhu 524  
Jarret, R. L. 8541  
Jarvis, J. L. 4476, 6066  
Jaša, B. 4621  
Jassem, B. 1364  
Jassem, M. 10763  
Jaswal, S. V. 8374  
Jatala, P. 7347, 7348, 7350



- Jatasra, D. S. 4868, 5039, 6935, 7793, 9003, 9301, 9338, 9451, 9460, 9461, 10326
- Jature, S. D. 9135
- Jauhar, P. P. 6226, 7257, 7261
- Javaheri, F. 11131
- Javornik, B. 3045, 3203, 8924, 8932
- Jawahar Ram Sharma 7497
- Jawale, M. D. 7142
- Jawalekar, D. V. 3386
- Jaworski, A. 1289
- Jaworski, C. A. 5624, 6324, 7337, 7707
- Jayachandran, B. K. 2454, 6469
- Jayachandran, K. 6469
- Jayakumar 10596
- Jayakumar, R. 2119, 2120, 5120, 8900, 10593, 10596
- Jayalakshmi, K. 1182
- Jayan, P. K. 2199
- Jayapragasam, M. 5134
- Jayaramaiah, H. 1414, 1416, 2406, 5077
- Jayawardena, G. 5098
- Jeanjean, M.-F. 4882, 6882
- Jedlinski, H. 2989, 4933
- Jeffrey, C. 5600
- Jeger, M. J. 10371
- Jelenkovic, G. 634, 8564
- Jelinowska, A. 3028, 7282
- Jellis, G. J. 4351, 4352, 7737
- Jen, Y. Y. 2612
- Jenabzadeh, P. 10632
- Jenison, J. R. 10474
- Jenkins, G. 4264
- Jenkins, J. N. 539, 2313, 2315, 6357, 6359, 6361
- Jenkins, S. 10131
- Jenner, C. F. 3938
- Jennings, D. L. 742, 2522, 4549, 7583, 10905
- Jennings, P. 8048
- Jennings, P. R. 5114, 6189, 7858
- Jensen, H. A. 2130
- Jensen, H. J. 3873
- Jensen, H. P. 4086, 8125, 8869
- Jensen, J. 1031, 4086, 8077
- Jensen, N. F. 4843
- Jensen, R. 8278
- Jensen, R. A. 10793
- Jensma, J. R. 2595
- Jerram, E. M. 2538
- Jestaedt, M. 7653
- Jestlin, L. 8121
- Jesus, L. M. de 7223
- Jewell, D. C. 1886, 8738
- Jha, K. P. 4213
- Jha, S. 9096
- Jhooty, J. S. 9060, 9329
- Jhorar, B. S. 9763
- Ji, K. H. 2853
- Ji, R. Z. 3368
- Ji, T. 3072
- Ji, X. Q. 5280
- Jia, S. G. 2937
- Jia, X. 2937
- Jian, L. C. 1844
- Jiang, R. Q. 3346
- Jiang, X. C. 4043
- Jiang, Y. H. 723
- Jiang, Y. Z. 366, 367
- Jiang, Z. C. 3907
- Jika, N. I. 4162
- Jilaveanu, A. 5634
- Jimenez, B. 4742
- Jimenez, J. R. 4994
- Jindal, P. C. 5497, 10926
- Jindal, S. 876
- Jindal, S. K. 4453
- Jing, J. K. 2937
- Jinks, J. L. 582, 584, 1372, 6402, 6403, 7431, 8333, 9377
- Jiránek, O. 2319
- Jo, C. J. 7446, 7449
- Jo, J. 9752
- Joarder, O. I. 2134
- Jochimsen, G. 1771
- Joel, D. M. 5461
- Joggi, D. 1251, 3207, 5188
- Joginder Singh 9582
- Johal, S. S. 423
- Johansen, M. H. 887
- Johansen, R. H. 7315
- Johansson, S. 3639
- Johari, R. K. 5145
- Johari, R. P. 1036, 1190, 7148
- John, V. T. 5148, 9714
- Johns, C. W. 7766
- Johnson, A. W. 5648
- Johnson, C. B. 6942
- Johnson, C. E. 5623
- Johnson, C. W. 5117, 5119
- Johnson, D. A. 430, 4104, 4909, 6235
- Johnson, D. L. 7901, 8608
- Johnson, E. R. 5007
- Johnson, F. M. 4012
- Johnson, G. 6842
- Johnson, H., Jr. 8526, 8527
- Johnson, J. W. 2899, 5842, 6094, 7150, 7176
- Johnson, K. J. R. 4290
- Johnson, L. A. 8580
- Johnson, L. B. 4286
- Johnson, M. C. 7475
- Johnson, R. 3057, 3973
- Johnson, R. R. 6033, 11144
- Johnson, V. A. 6908, 8721, 10341
- Johnson, W. A. 10338
- Johnson, W. M. 10721
- Johnston, A. 6233
- Johnston, A. W. B. 3236, 6241
- Johnston, G. R. 6290, 6292, 6293
- Johnston, M. C. 4426
- Johnston, R. H. 5917
- Johnston, S. A. 6307
- Johnston, T. D. 842, 1536, 4322
- Johnston, T. H. 7204
- Johnston, W. H. 6079
- Johnstone, R. C. B. 814
- Johri, B. M. 7758
- Johri, M. M. 6036, 7043, 10467
- Joi, M. B. 9833
- Jokela, J. J. 1496, 1512
- Jolivet, E. 4058
- Joly, R. J. 5532, 6585, 10036
- Jonassen, I. 5046, 5047
- Jonasson, T. 3008, 4358, 9419
- Jones, A. 4366, 5276, 10701
- Jones, A. T. 4549
- Jones, B. L. 4487, 10322, 10323
- Jones, D. G. 3277, 8266
- Jones, E. M. 10586
- Jones, F. G. W. 4359
- Jones, G. E. 4083
- Jones, H. G. 2137, 6090
- Jones, I. T. 5045
- Jones, J. E. 3361, 9818, 10719
- Jones, J. L. 3425
- Jones, J. P. 1053, 5931, 9257
- Jones, P. G. 2266
- Jones, P. W. 6942
- Jones, R. 7295
- Jones, R. A. 4637, 5621, 7708, 9268, 10670, 11043
- Jones, R. A. C. 518, 3333, 6340
- Jones, R. A. D. 3174, 9654
- Jones, R. G. W. 5789
- Jones, R. J. 2197
- Jones, R. N. 10632
- Jones, T. B., Jr. 11057
- Jones, T. W. A. 3221
- Jones, W. A., Jr. 10153
- Jones, W. T. 474, 475, 476
- Jong, D. W. de 3429, 3430
- Jong, H. de 3314
- Jong, J. H. de 9027
- Jong, S. K. 4018
- Jönsson, R. 1404
- Jönsson, U. 3322, 3325
- Joo, M. K. 3095
- Joppa, L. R. 1832, 4917
- Jordan, D. 10131
- Jordan, J. D. 5803
- Jordán Molero, F. L. 2359
- Jørgensen, J. H. 4086, 8125, 8869, 9617
- Jorgenson, E. C. 552
- Jos, J. S. 3403
- Joseph, A. 9648
- Joseph, C. B. 2648
- Joseph, I. 4615
- Josephson, L. M. 1982, 8063
- Josey, D. P. 947
- Joshi, A. B. 7577
- Joshi, A. K. 336
- Joshi, B. C. 5845, 7895, 7896, 8736, 10381
- Joshi, B. G. 7471, 7472
- Joshi, B. S. 8638, 10123
- Joshi, D. P. 6373
- Joshi, H. C. 8703
- Joshi, J. 1597
- Joshi, L. K. 2753
- Joshi, L. M. 1837, 3976, 4913, 4914, 8703
- Joshi, M. G. 1889, 2956, 6933
- Joshi, M. S. 1414, 2406, 10596
- Joshi, N. S. 10593
- Joshi, P. 4122
- Joshi, R. 722
- Joshi, R. L. 5307, 10704
- Joshi, S. 1996, 9088, 11039
- Joshua, D. C. 4761, 8316, 8593
- Jošt, M. 124
- Joowani, M. G. 4175, 4176, 7174, 8144, 8149
- Jouan, B. 1403
- Joubert, T. G. la G. 8525
- Joudrier, P. 6882
- Jouve, N. 5943
- Jovančević, R. 8426, 9111
- Joyapa, B. S. 8967
- Ju, H. Y. 3305, 6281
- Juang, C. R. 954
- Judy, W. H. 963, 11153
- Jugsujinda, A. 5108
- Juhász, A. 8367
- Juhász, O. 3613
- Jui, P. Y. 2019, 2020
- Julén, G. 1668, 6869
- Juliano, B. O. 4212, 6163, 8182
- Jumshid Khan 2733
- Jun, K. S. 7636
- Junek, J. 3561
- Junge, H. 906
- Jurgenson, J. E. 2366
- Jürges, K. 4321
- Jurzysta, M. 7284
- Jüttersonke, B. 6200
- Juuti, T. 3892
- Kaan, F. 9911, 11058
- Kaba, H. 1592
- Kabalkina, N. A. 3870
- Kabarity, A. 1008
- Kabysh, V. A. 2232
- Kaczmarczyk, W. 4990
- Kadam, B. S. 9641, 9664
- Kadam, J. R. 4181
- Kadam, S. S. 8135
- Kadapa, S. N. 9802, 10714
- Kadian, S. P. 10406
- Kadman, A. 5464, 5465, 7570
- Kadotani, N. 617, 9851
- Kadyraū, M. A. 2024
- Kadyrov, M. A. 6, 2024, 7100, 7103
- Kaehne, I. D. 3253
- Kagan, J. 8718
- Kahler, A. 5807
- Kahler, A. L. 2856, 7856
- Kahlon, P. S. 5687
- Kai, C. I. 4731
- Kai, S. 5118
- Kaicker, U. S. 10806
- Kaidarov, L. 4386
- Kailarová, J. 4283
- Kaimakan, I. V. 1447
- Kaina, B. 8663, 10097
- Kaiser, W. J. 7796, 11188
- Kaisyn, F. V. 9153
- Kaizuma, N. 7772
- Kak, S. N. 2766
- Kakaev, R. 525, 541
- Kakar, S. N. 2751
- Kaktynya, D. K. 2278
- Kaku, H. 8199
- Kalendarishvili, T. L. 2506
- Kalasa-Balicka, M. 10687
- Kalashnik, N. A. 152, 3928, 10310
- Kalashnik, N. S. 6857
- Kal'chenko, V. A. 1626
- Kale, S. P. 10357
- Kalenich, N. A. 1960
- Kaletka, S. 1914, 10419
- Kaliev, A. Kh. 163
- Kalinina, I. P. 9932
- Kalinina, L. V. 3290
- Kalinina, N. V. 4752
- Kalinina, S. L. 93
- Kalloo 896, 903, 5619, 8544, 11000, 11055, 11071
- Kálmán, L. 2005, 9572, 9573
- Kalode, M. B. 390, 3201, 8215, 8216
- Kaltöfen, H. 4241, 5159, 8227, 8948
- Kalton, R. R. 3256
- Kaltsikes, P. J. 1108, 1888, 7980
- Kalubarme, M. H. 5672
- Kalyagin, V. N. 2623
- Kalyagin, Yu. N. 478
- Kalyagina, L. G. 911
- Kamal 4410
- Kamal, M. 10180
- Kamala, T. 9231
- Kamas, J. S. 5447
- Kamchatnyi, V. I. 3697
- Kamel, M. S. 1822, 5385
- Kamelina, A. M. 4890
- Kamil M. N. Tamimi 1539
- Kamilova, M. 4386
- Kamimura, S. 9275, 10072
- Kaminskaya, L. N. 2811, 6998
- Kaminskaya, O. V. 3590
- Kamiński, W. 1439, 1440
- Kamlesh Mathur 933
- Kamlyuk, L. V. 1718
- Kammerlohr, D. S. 8502
- Kampe, F. 849, 2604
- Kamthan, K. P. 9828
- Kananykhina, V. A. 689, 9109
- Kanarskaya, L. N. 3290
- Kanato, K. 6513
- Kanazawa, K. 10995
- Kandaswamy, T. K. 10126
- Kandelaki, G. V. 10301
- Kandil Ahmed, A. 5385
- Kandlikar, S. 9066
- Kaneda, C. 392, 10620
- Kanehira, T. 9255
- Kaneko, K. 4067
- Kaneko, Y. 10987
- Kanesawa, H. 9035
- Kang, B. T. 11111
- Kang, H. 4801, 6827, 9173
- Kang, J. C. 364
- Kang, K. H. 3418, 3477
- Kang, M. S. 10433, 10435
- Kang, Y. K. 3172
- Kannaian, J. 7801, 11075
- Kannaian, S. 6195, 9658
- Kannan, K. 2516
- Kannangara, C. G. 3110
- Kannangara, T. 7156
- Kannenberg, L. W. 6826, 7020, 7806, 8812
- Kanno, T. 9275, 10072
- Kan'shina, M. V. 9949
- Kantaradhya, R. 329
- Kanter, D. G. 7179
- Kantor, T. S. 676
- Kanwar, J. S. 8558, 8559
- Kanwar, R. S. 6373, 10752
- Kanwar Singh 5242
- Kao, C. L. 1794
- Kao, F. L. 3753
- Kao, K. H. 8744
- Kao, K. N. 1373, 8661
- Kao, M. W. 8906
- Kapanadze, I. S. 726, 2504
- Kapás, S. 4588
- Kapelev, I. G. 2767, 5717
- Kapitonova, L. I. 632
- Kaplan, D. T. 973, 8613
- Kapoor, R. L. 324
- Kapoor, S. 3616



- Kapoor, S. K. 2505  
 Kappel, W. 8702  
 Kappelman, A. J., Jr. 4389, 4391, 9820  
 Kapsa, J. 510  
 Kapur, K. L. 5626  
 Kapur, S. 10015  
 Kapur, S. P. 2505  
 Kapusta, G. 4126, 11159  
 Kapusta, I. B. 7042  
 Kapustina, A. P. 3944, 9436  
 Kar, G. N. 144  
 Kara, O. 1119  
 Karaban', R. T. 4589  
 Karabanov, I. A. 5514  
 Karadzhi, G. M. 9153  
 Karagezyan, A. S. 3426  
 Karaivanov, G. P. 8821, 9578  
 Karale, A. R. 6538  
 Karam Chand 4878  
 Karamat Ullah 6637, 6648  
 Karami, E. 6350  
 Karamyshev, R. M. 8751  
 Karanjkar, R. R. 6131  
 Karataev, E. S. 10068  
 Karataeva, L. P. 1700  
 Karataglis, S. S. 9726, 9727  
 Karavaeva, N. P. 10693  
 Karaya, R. K. 9970  
 Karazhanova, L. 4280  
 Karazhbeĭ, P. F. 3202  
 Karba, I. P. 9237  
 Kardos, F. 8367  
 Karel, A. K. 10112  
 Kargopol'tseva, G. E. 3697  
 Karikari, S. K. 2508, 6802  
 Karim, A. N. M. R. 9712  
 Karin, S. 3165, 5111  
 Karl, E. 3237  
 Karlin, S. 1000, 5721, 9345  
 Karlubik, M. 6771  
 Karm Chand 1857, 3886  
 Karmakar, R. M. 10473  
 Karnatz, A. 3505  
 Karogosyan, A. S. 3426  
 Karolewski, P. 3648  
 Karolini-Skaradzińska, Z. 8009, 8010  
 Karpel', B. A. 2583  
 Karpitskaya, N. M. 7304  
 Karpovich, E. V. 2414  
 Karpukhina, L. M. 2967  
 Kartapradja, R. 1553  
 Kartar Singh 2498, 4531  
 Kartashov, A. P. 755  
 Kartel', N. A. 7093, 8846  
 Kartha, K. K. 8687  
 Karue, C. N. 8141  
 Karumidze, T. 4505  
 Karve, A. D. 4141  
 Karyagin, Yu. G. 10129  
 Karycheva, L. A. 7613  
 Kasach, A. E. 8251  
 Kasarda, D. D. 4825, 9446  
 Kasha, K. J. 6215, 7079, 7996, 8068, 8079, 8086, 8843, 9452  
 Kashakashvili, Ts. S. 1463  
 Kashkim, K. V. 10561  
 Kashuba, L. K. 5685  
 Kashyap, N. P. 6778  
 Kasperbauer, M. J. 426, 2373, 5193  
 Kästner, H.-F. 3728  
 Kastori, R. 3392  
 Kature, M. R. 637  
 Kasumov, F. Yu. 2772, 4770, 5398  
 Kas'yanenko, A. N. 47  
 Kas'yanenko, E. N. 47  
 Katamadze, E. 2541  
 Kataoka, K. 9665  
 Katarki, B. H. 1339, 10702  
 Katayama, N. 8929  
 Katayama, T. 4081, 4802, 5024, 5025, 9666  
 Katayama, T. C. 1218, 1565, 2128, 8596, 8903, 10604  
 Katayama, Y. 7915  
 Katepallewar, B. N. 4140  
 Katerov, K. 6556  
 Katharki, B. H. 6353  
 Katherman, M. J. 4689  
 Katiyar, R. P. 984, 3461, 3788, 3901, 4461, 4758, 5709, 6790, 6992, 10707  
 Katkov, V. A. 415, 1248  
 Kato, I. 4081, 5024, 5025  
 Kato, M. 1396, 1531, 3674, 9238  
 Kato, T. 757  
 Katoch, P. C. 407  
 Katsarov, A. 10480  
 Katseiko, A. N. 8384  
 Kattan, A. A. 3603  
 Katyayani, M. 8271  
 Katz, A. 910  
 Katzarov, A. 10480  
 Kauffeld, N. M. 8953  
 Kauffman, B. W. 3644  
 Kauffman, H. E. 3168, 5114, 9705, 10619  
 Kaufman, M. L. 3992  
 Kaul, A. K. 8622  
 Kaul, B. L. 1389, 1421, 2766, 3484, 6461  
 Kaul, G. L. 5446  
 Kaul, M. L. H. 377, 6787, 7780  
 Kaul, R. 6429  
 Kaur, G. 9226, 9235  
 Kaushal, A. N. 407  
 Kaushal, K. K. 7118  
 Kaushal, P. C. 8460  
 Kaushik, L. N. 903  
 Kaushik, U. K. 2173  
 Kavacs, G. 314, 6106  
 Kavats, G. E. 6106  
 Kaw, R. N. 964, 9318  
 Kawabata, S. 5169, 6209, 6210, 6211, 6212  
 Kawaguchi, I. I. 3254  
 Kawai, T. 8160  
 Kawakatsu, M. 7656  
 Kawamata, S. 8939  
 Kawamura, S. 3658  
 Kawamura, T. 7651  
 Kawanabe, S. 3212, 3213  
 Kawano, K. 2357, 7428, 10770  
 Kawase, T. 5271  
 Kawashima, N. 10790  
 Kawthalkar, M. P. 2327  
 Kay, R. H. 9795  
 Kayama, R. 9752  
 Kayongo-Male, H. 8141  
 Kazakov, I. V. 4545  
 Kazankov, A. F. 6021  
 Kazas, A. N. 728, 729, 7568  
 Kazei, T. L. 9181  
 Kazimierska, E. M. 1276, 10673  
 Kazimierski, T. 7273, 7294, 10673  
 Kaz'min, G. T. 4724, 5686  
 K'ndrev, T. 8690, 10480  
 Kearsey, M. J. 5725  
 Kebede, Y. 4113  
 Kedrov-Zikhman, O. O. 231, 7013, 10416  
 Keeling, B. L. 11124, 11166  
 Keeling, J. W. 9821  
 Keen, A. 4788  
 Keen, B. 4427  
 Keen, N. T. 973, 1596  
 Keeney, P. G. 5362  
 Keep, E. 7589, 10906  
 Kegler, Kh. 8385  
 Kehr, W. R. 3242, 3246, 3255, 5208  
 Kei, K. L. 8911  
 Keijzer, C. J. 10415  
 Keim, D. 10286  
 Keim, D. L. 5839, 9462  
 Keim, K. R. 8057  
 Keith, E. A. 3059  
 Keldysh, M. A. 677  
 Keller, E. R. 4738  
 Keller, M. 3858  
 Keller, W. A. 1400, 6280, 8338, 8339, 8340, 8343, 8686  
 Kelley, C. 4263  
 Kelley, C. A. 5189  
 Kelley, D. B. 6875  
 Kellison, R. C. 8469  
 Kelly, A. F. 5719  
 Kelly, R. P. 1502  
 Kemble, R. J. 257, 1978, 4844, 5996, 6028, 6029  
 Kemelova, T. K. 8197  
 Kemkernian, A. A. 4675  
 Kemp, J. R. 10335  
 Kempf, D. 8888, 8890  
 Kempton, D. P. H. 6629, 6630, 6631  
 Kenaschuk, E. O. 1353, 3375, 6364, 8312  
 Kendall, A. C. 1715, 7096  
 Kennedy, A. J. 6487  
 Kennedy, G. G. 2653  
 Kennedy, I. R. 5241  
 Kenny, T. J. 10642  
 Kenten, R. H. 5364  
 Kenworthy, S. 7130  
 Kenworthy, W. J. 1581  
 Kenya, Ministry of Agriculture 1568, 1569  
 Keoghan, J. M. 433  
 Kephart, S. R. 7407  
 Keplinger, J. A. 4694  
 Keranskaya, O. I. 174  
 Kerbabaeva, Z. A. 10717  
 Kerber, E. 3653, 10232  
 Kerber, E. R. 1852, 6959  
 Kerby, K. 8254  
 Kerby, T. A. 1343  
 Kereksha, O. S. 3310  
 Keresztes, A. 9569  
 Kerkadze, I. G. 1014, 1625, 1677, 2391, 2393, 2502, 2503, 9046, 9406, 9869, 9965  
 Kerlin, T. W., III 2304  
 Kermicle, J. 8799  
 Kermicle, J. L. 7035  
 Kerr, E. 2651  
 Kerr, E. A. 288, 289, 290, 2637, 2651, 8558, 8559  
 Kerr, E. D. 8768  
 Kersten, H. 934, 3237  
 Kertész, Z. 9464  
 Kesavan, V. 6796, 6808, 8640  
 Kesicki, E. 7995  
 Kessel, R. 1651  
 Kester, D. E. 7622, 8455  
 Ketring, D. L. 3478  
 Kettenes-van den Bosch, J. J. 10832  
 Keya, S. O. 10112  
 Keydel, F. 2893, 3920, 7875  
 Keyes, A. J. 6222, 7096  
 Keyes, G. 3282  
 Keyes, G. J. 5230, 6262  
 Keys, A. J. 6222, 7096  
 Keys, C. 2719  
 Khachatryan, Zh. G. 10293  
 Khader, A. S. 6523  
 Khadilkar, B. T. 2419, 2704, 2756  
 Khafaga, E. R. 7404, 7405, 7406, 9020  
 Khaĭlenko, N. A. 1212  
 Khaĭrwal, I. S. 2072, 5319  
 Khaitov, I. Kh. 9917  
 Khajuria, H. N. 3559  
 Khakimova, A. G. 7974  
 Khalaf, A. G. 10142  
 Khaleque, M. A. 2134  
 Khalifa, M. A. 8059, 8726, 8801, 8802  
 Khaliĭgitov, Kh. 9813  
 Khalil, H. A. 255  
 Khalil, H. A. A. 4392  
 Khalil, M. A. K. 6592  
 Khalilov, D. Kh. 1462, 9954, 9957  
 Khalilov, È. K. 5489  
 Khalmirzaev, B. Kh. 10066, 11004  
 Khambanonda, P. 1208  
 Khamikova, A. G. 7926  
 Khamzin, M. S. 6988  
 Khan, A. M. 2764  
 Khan, A. Q. 3078, 9588  
 Khan, I. A. 5671, 11067  
 Khan, M. 799  
 Khan, M. N. 1049, 7151, 10482  
 Khan, M. R. 3755  
 Khan, N. F. S. 8317  
 Khan, R. 7599, 10847  
 Khan, T. A. 10596  
 Khan, T. N. 6796, 6797, 6804, 8625  
 Khanaqa, A. 10788  
 Khandale, D. Y. 7800  
 Khangan, A. S. 577  
 Khangil'din, V. V. 974, 3925, 5704  
 Khanin, V. F. 684  
 Khanina, N. P. 3550  
 Kharbanda, P. D. 4683  
 Kharshiladze, Z. V. 2513  
 Khasanov, O. 1350  
 Khasenevich, A. I. 687  
 Khashmelmous, A. E. 8511  
 Khatamov, F. 3374  
 Khater, A. A. 2930  
 Khatyleva, L. Ü. 7702  
 Khavkin, E. E. 6052  
 Khayrallah, W. A. 4309, 9761  
 Khedekar, P. K. 10360  
 Khehra, A. S. 3071, 8050, 8060, 9899  
 Khera, A. P. 5497  
 Khereba, A. H. 5608  
 Khettry, A. 7515  
 Kheyr-Pour, A. 6041, 6824, 9342  
 Khil'chevskaya, R. I. 10236  
 Khlebovich, V. V. 24  
 Khlyastikov, G. A. 4238  
 Khmaladze, S. I. 5515, 10947  
 Kho, Y. O. 8533, 8534  
 Khodos, V. N. 3950, 6962  
 Khodyrev, N. G. 1173  
 Khodzhakulov, T. 2039, 10518  
 Khodzhimuradova, R. 536  
 Khodzhimuradova, R. Kh. 4028  
 Khokhlacheva, V. E. 4540  
 Khokhlov, A. N. 184, 10337  
 Kholms, I. N. 10633  
 Kholodov, A. G. 10234  
 Kholoptseva, N. P. 9735  
 Khomenko, A. D. 6962  
 Khorikov, O. S. 1700, 1726  
 Khor'kov, E. I. 4863, 10325  
 Khosla, P. K. 1503, 8458, 8460  
 Khot, A. B. 5400  
 Khotyanovich, A. V. 5304  
 Khotyleva, L. V. 2811, 7042, 7702  
 Khranov, E. S. 7620  
 Khrantsova, N. V. 6954  
 Khrishna, T. S. 390  
 Khristolyubova, N. B. 8032  
 Khristov, L. 6529  
 Khristov, Yu. A. 2979, 4889, 5916  
 Khristova, I. 10065, 11001  
 Khryanin, V. N. 4399, 10734  
 Khudaĭberdyev, Ch. 3363  
 Khudaikuliev, A. D. 525, 3366  
 Khudoerova, M. 10722  
 Khurana, D. K. 1503, 8460  
 Khuranova, N. M. 4242  
 Khuroshvili, K. G. 3576  
 Khusainova, G. K. 171  
 Khush, G. 9709  
 Khush, G. S. 398, 400, 3196, 6159, 6187  
 Khuspe, S. S. 7577  
 Khuspe, V. S. 7929  
 Khutsishvili, G. A. 4866  
 Khvan, A. I. 1212  
 Khvasyuk, L. A. 7311  
 Khvatysh, G. A. 9955  
 Khvedynich, O. A. 8099  
 Kiang, J. C. 3346  
 Kiang, Y. T. 366, 367, 5681



- Kichigina, S. N. 174  
 Kichina, V. G. 7580  
 Kichina, V. V. 4546, 4548  
 Kidger, A. L. 8784  
 Kieckhefer, R. W. 4933, 10401  
 Kieliszewska-Rokicka, B. 3642  
 Kiffer, E. 9858  
 Kihara, H. 1629, 2155, 2467, 3899, 8728  
 Kiihl, R. A. S. 5673  
 Kikacheishvili, R. M. 2546, 2554, 4565  
 Kikindonov, T. 10765  
 Kiktev, M. M. 3362  
 Kiku, V. N. 923, 2639  
 Kikuchi, F. 6153, 7190  
 Kilburn, S. R. 5083  
 Kil'chëuskii, A. Ü. 7702  
 Kil'chevskaya, O. S. 216  
 Kil'chevskii, A. V. 7702  
 Kilen, T. C. 1590  
 Kilgore, S. 265  
 Killick, R. J. 6331  
 Killinger, G. B. 2421  
 Kilminster, A. M. 2702  
 Kilpatrick, R. A. 1830  
 Kim, A. S. 7188  
 Kim, B. D. 8026, 8027  
 Kim, B. W. 3766  
 Kim, C. H. 351  
 Kim, C. N. 3374  
 Kim, C. S. 6573, 7636, 7643, 8478  
 Kim, D. S. 7636, 7643, 8478  
 Kim, H. B. 2900  
 Kim, H. I. 10154  
 Kim, H. K. 385  
 Kim, H. L. 6092  
 Kim, I. H. 631  
 Kim, J. C. 590  
 Kim, J. H. 3418, 4512, 7636  
 Kim, J. R. 3766  
 Kim, K. C. 635  
 Kim, K. H. 3199  
 Kim, K. J. 8647  
 Kim, K. M. 4538  
 Kim, M. H. 3183  
 Kim, R. 9813  
 Kim, S. B. 8392  
 Kim, S. D. 241, 242, 1121  
 Kim, S. G. 4684  
 Kim, S. K. 241, 242, 1121, 3029, 4007, 4333, 10154  
 Kim, S. S. 6573, 6575  
 Kim, W. S. 8434  
 Kim, Y. H. 2497, 6515  
 Kim, Y. S. 8434  
 Kim, Y. W. 3746  
 Kim, Y. Y. 7446, 7449  
 Kim, Z. S. 6579  
 Kimber, D. S. 6378, 6379, 6385  
 Kimber, G. 1784, 5862, 6845, 7852, 7894  
 Kimble, K. A. 4637  
 Kimmmerer, T. W. 10028  
 Kimura, M. 2836, 2837, 2838, 2839, 4774  
 Kimura, T. 8199  
 Kinbacher, E. J. 5167, 8234  
 Kincer, H. G. 1982  
 Kindler, S. D. 5087  
 King, P. J. 21, 253, 6830, 7044  
 King, S. 8063  
 King, S. B. 6065, 10494  
 King, T. P. 946  
 Kingsbury, R. W. 6875  
 Kingston, I. B. 5785, 5786  
 Kinloch, B. B., Jr. 6590  
 Kinoshita, T. 1015, 2347, 2348, 6390, 8172, 8728, 9064, 9691, 10597  
 Kinsella, M. N. 6296, 6297  
 Kinsey, J. G. 4066  
 Kinyapina, N. L. 975, 6784  
 Kinzl, H.-P. 210  
 Kiper, I. M. 1304  
 Kiper, M. 6081, 7811  
 Kipnis, E. A. 10462  
 Kirby, E. J. M. 4093  
 Kirby, M. 6227, 9734  
 Kireeva, L. K. 1490, 3615  
 Kireeva, T. A. 975  
 Kirichenko, E. B. 13, 41  
 Kirichenko, F. G. 2980, 3924  
 Kirichenko, V. V. 7080  
 Kirillova, V. V. 9964  
 Kiriyenko, I. M. 5247  
 Kirk, T. K. 1693  
 Kirkham, M. B. 172, 191, 5907  
 Kirmas, L. A. 4632  
 Kirsanova, E. V. 491, 7358  
 Kirsanova, L. I. 500, 502, 8977  
 Kirti, P. B. 9998  
 Kir'yan, M. V. 9421, 9481  
 Kir'yan, N. A. 9441  
 Kiryukhin, V. P. 8979  
 Kiselev, E. P. 4342  
 Kiseleva, S. D. 1287  
 Kisfalusi, T. 4895  
 Kisha, J. S. A. 6666  
 Kishaba, A. N. 7682, 11005  
 Kishi, K. 8563  
 Kishimoto, R. 392  
 Kishore, P. 4175, 4176, 7174  
 Kisimoto, R. 392  
 Kislev, M. E. 7948  
 Kison, H.-U. 22, 3883, 5809, 5810, 9424  
 Kiss, A. 1877  
 Kiss, J. M. 1877  
 Kiss, Zs. R. 8331, 10789  
 Kissel, N. I. 7982  
 Kissling, P. 6569, 6570  
 Kistler, J. R. 4778  
 Kistner, G. 5944  
 Kita, F. 8342, 10595  
 Kitahara, S. 4839, 4840, 4841  
 Kitano, H. 617, 3420, 9690, 9851  
 Kitisi Sukhapinda 4025  
 Kitivo, D. K. 7743  
 Kittrick, J. A. 5884  
 Kiu, K. S. 1958  
 Kivi, E. 7829  
 Kiyosawa, S. 4, 5, 60, 387, 1013, 1694, 1695, 1696, 1697, 4225, 4779, 4781, 5313, 6181, 8921, 10618  
 Kiyozaawa, S. 4225  
 Klashorst, G. van de 517  
 Klášterská, I. 10166  
 Kleijer, G. 3223, 3966  
 Klein, D. 1126, 1981, 1995  
 Kleinhofs, A. 2041, 3104, 7095, 7104, 10529, 10532  
 Kleinkopf, G. E. 8285  
 Kleinschmit, J. 7623, 7653, 8465  
 Kleparski, J. 1475  
 Kleyla, P. C. 2230  
 Klimakova, E. T. 7358  
 Klimashevskii, E. L. 1685, 10235  
 Klimenko, A. F. 680, 705  
 Klimova, A. I. 9236  
 Klinck, H. R. 3996, 4097, 5035, 6068, 6069, 7082  
 Klindworth, D. L. 7882, 7884  
 Klinzmann, B. 411  
 Klipko, V. P. 10923  
 Klišewicz, J. M. 4479, 10808, 10823, 10827  
 Kloos, W. E. 7732  
 Kloosterman, J. 10832  
 Kloppstech, K. 3107  
 Klose, R. 3856  
 Kloutvor, J. 4510  
 Kłozová, E. 3780, 5705  
 Klshaba, A. N. 6633  
 Klun, J. A. 9593  
 Klunghness, L. M. 3649  
 Klyachenko, V. I. 10761  
 Klyuchko, P. F. 275, 7029, 8049, 10486  
 Klyuchnikova, Z. V. 9224  
 Knievel, D. P. 9509, 9510  
 Knight, C. 6437  
 Knight, R. 7736  
 Knight, R. J., Jr. 1441, 5466  
 Knight, V. H. 7581, 9979, 10906, 10907  
 Knight, W. E. 7301  
 Knipser, W. 4570, 10936  
 Knoblauch, C. J. 10397  
 Knoke, J. K. 287, 7075  
 Knott, D. R. 1836, 8735  
 Knowles, P. 2577, 9190  
 Knowles, P. F. 4478, 5387, 5389, 10827  
 Knowles, R. P. 2201, 6217  
 Knox, R. B. 10267  
 Knudsen, J. C. N. 5052, 6688  
 Knudsen, K. E. B. 5043  
 Knüpfer, H. 6255  
 Knyazeva, V. P. 8979  
 Knyazeva, Z. V. 4654  
 Ko, W. H. 4619  
 Koba, T. 6916  
 Kobayashi, K. 4737, 6772  
 Kobayashi, M. 107, 108, 2283, 4856  
 Kobayashi, S. 5451, 9128, 9132  
 Kobayashi, T. 890, 7649, 7650  
 Kobierzyńska-Golab, Z. 3022  
 Koblev, S. Yu. 409  
 Koblitiz, H. 2265  
 Kobrehel, K. 2955, 6882, 10342  
 Kobryakina, N. B. 3590  
 Kobylanskaya, K. A. 40, 9441  
 Kobylanskii, V. D. 3018, 9514, 9516, 9517  
 Kobzeva, S. G. 5538  
 Koch, F. 4418  
 Koch, H. 7404, 7405, 7406  
 Koch, H.-D. 7862, 10254  
 Kochba, J. 5452  
 Kocher, H. P. 11003  
 Kochetkov, V. M. 2469, 9106  
 Kochhann, R. A. 10251  
 Kochina, O. A. 3202  
 Köchling, J. 4937  
 Kock, R. 4789  
 Kodato, Y. 7470  
 Kodde, E. 9281  
 Kodrič, I. 3539  
 Kodua, T. 5689, 7768  
 Koduru, P. R. K. 2065, 8666, 10561  
 Koedam, A. 5530  
 Koehler, D. E. 4981, 7056  
 Koehler, D. O. 3811  
 Koeppe, D. E. 967  
 Koffi, G. 1206  
 Kofoid, K. D. 8137  
 Kogan, M. 7778  
 Kogure, K. 6677  
 Kogut, I. D. 2267  
 Kohel, R. J. 528, 5301, 6341, 6346  
 Kjøie, B. 1035  
 Koike, H. 3387, 7408  
 Koivuniemi, P. J. 5344, 5345  
 Koizumi, M. 1459  
 Koizumi, S. 1236  
 Kokaya, Ts. D. 9961  
 Kokh, Kh. D. 10254  
 Kokoreva, N. N. 9144  
 Kokubu, T. 3336, 3337  
 Kola, K. 7493  
 Kołaczowska, M. 8064  
 Kolarov, D. 6571  
 Kolbe, W. 10853, 10913  
 Kolek, J. 1969  
 Kolesnikov, A. I. 2494  
 Kolesnikov, I. M. 46  
 Kolesnikova, A. F. 2494, 4527  
 Kolev, D. 211  
 Kolhe, A. K. 2747  
 Kolhe, G. L. 2121  
 Kollár, B. 7949  
 Koller, O. L. 5864  
 Kolmakova, I. R. 3928, 10310  
 Kol'nobritskii, M. I. 5926  
 Kolomiets, L. A. 1084  
 Kolomiets, N. P. 3562  
 Kolomiyets, N. P. 3562  
 Kolontaev, V. M. 2470, 4511  
 Kolontaev, Yu. V. 2470, 4511  
 Kolontaevskaya, L. V. 10918  
 Kolosentseva, N. V. 7921  
 Kolosova, L. D. 5234  
 Kolot, V. N. 968  
 Kolotenzov, P. V. 9326  
 Koloteva, N. I. 7592  
 Kolotilov, V. V. 9764, 9765  
 Kolotilova, A. S. 9764, 9765  
 Kolyagin, Yu. S. 7120  
 Kolyuchii, V. T. 8746  
 Komada, H. 1326  
 Komanich, I. G. 786, 5506  
 Komari, T. 10778  
 Komarnitskii, I. K. 6300, 6407  
 Komarov, V. I. 9425, 9474, 9475  
 Komarova, G. E. 10477  
 Komatsu, H. 10935  
 Komatsu, T. 9732  
 Komeichi, M. 9733  
 Kömmer, C. 6320  
 Komolykh, O. M. 4724, 5686  
 Komorowska-Jędrzyś, J. 507  
 Konarev, A. V. 7911, 8247  
 Konarev, V. G. 1047, 7943, 8848  
 Kondo, K. 9868  
 Kondrashov, V. T. 3606  
 Kondrat'eva, N. V. 5254  
 Kongseeree, N. 4212, 7203, 8186  
 Konina, L. V. 5524  
 Konishi, T. 8089, 8098  
 Konon, N. T. 7526  
 Kononenko, L. A. 547, 7388  
 Kononkov, P. F. 5561  
 Kononykhina, V. A. 689, 2484, 3529, 9109  
 Konoplya, S. P. 5283  
 Konorovskaya, A. A. 3117  
 Konrád, J. 2255  
 Konstantinov, S. I. 322, 1177, 7119  
 Konstantinova, A. F. 2530, 5475, 5476, 5480  
 Konstantinova, M. 10078  
 Konstantinova, M. 10078  
 Konteh, I. K. 8220  
 Kontrimas, Yu. K. 6488  
 Konyrbekov, M. 446, 449  
 Konyukhova, N. S. 10325  
 Konzak, C. F. 5124, 5884  
 Kook, V. A. 10730  
 Kopan', K. M. 7594  
 Kopan', K. N. 2472, 7594  
 Kopan', V. P. 2472, 7594  
 Kopeček, T. 3600  
 Kopeliovitch, E. 11061  
 Kopylova, T. G. 9928  
 Korablev, V. N. 3635, 3646  
 Koraiev, Y. S. 2930, 3061  
 Korchinskii, A. A. 6921  
 Kore, S. S. 7800  
 Korić, B. 3970  
 Korić, S. 6902  
 Korla, B. N. 9223  
 Kormilitšina, T. K. 2860  
 Kornelli, B. M. 6974  
 Korneva, E. I. 7526, 8652  
 Kornfeldt, A. K. 6617  
 Kornienko, A. S. 9211  
 Kornienko, A. V. 578  
 Kornienko, T. F. 686, 5426, 9932  
 Korobievskaya, A. P. 3310  
 Korobiyev'ska, A. P. 3310  
 Korobko, V. A. 958  
 Korochkina, S. K. 1555  
 Korol', A. B. 891, 894, 895, 897, 899, 1555, 1556  
 Korol', M. M. 891, 11066  
 Korolev, A. M. 5911, 5912, 8758  
 Koroleva, L. A. 10410  
 Korom, A. 6120  
 Koropachinskii, I. Yu. 5541  
 Korovina, O. N. 8680  
 Korovina, T. P. 9814  
 Korovina, V. 4254  
 Korsakova, L. A. 6191  
 Korytowska, W. 3668  
 Korzinnikov, Yu. S. 10927  
 Korzun, A. E. 9516  
 Korzun, G. P. 3696  
 Kosakovskaya, I. V. 6407  
 Kosba, Z. A. 4379



- Koshelevskaya, G. M. 10234  
 Kosichenko, N. E. 2567  
 Kosina, R. 2944, 4873, 5848  
 Koske, T. J. 11057  
 Kosmidou-Dimitropoulou, K. 5296  
 Kosmolak, F. G. 1800, 3941, 3947, 5899, 5903, 6925, 6959  
 Kosolapova, I. I. 174  
 Kosova, A. I. 824, 923  
 Kossuth, S. V. 4537  
 Kostadinova, M. 6551  
 Kostandi, G. V. 215  
 Kostenko, Yu. A. 9950  
 Koster, R. 5517  
 Kostuch, R. 7230  
 Kostyshin, S. S. 4021, 4022  
 Kostyuk, S. V. 3472  
 Kosykh, S. A. 9950  
 Koszykowski, T. J. 2721  
 Kotasthane, S. R. 1605, 2753  
 Kotecha, A. 4477, 5375  
 Kotelnikova, L. K. 10222  
 Koteswara Rao, G. 4163, 7158, 7159, 7162  
 Kotlyarov, V. V. 3984  
 Koto, E. 7377, 7378, 9809  
 Kotoman, E. M. 4526, 8397  
 Kotova, G. P. 7063  
 Kotova, K. A. 4336  
 Kotova, V. V. 4754  
 Kotowska, U. 1297  
 Kouadio, S. Y. 355  
 Koul, A. K. 8508  
 Kounov, K. 6406  
 Kourdakova, N. P. 10347  
 Kousounis, G. 9897  
 Koutsautakes, A. 9075  
 Koutsautakis, A. 9075  
 Kovačević, V. 7047  
 Kováčik, A. 636, 2417, 9889  
 Kovács, G. 9548  
 Kovacs, M. 6925  
 Koval', G. K. 10021  
 Koval', N. D. 3329  
 Koval', S. F. 10386  
 Koval'chuk, R. I. 2303  
 Kovalenko, G. K. 3534  
 Kovalenko, V. I. 5149, 5234, 10768  
 Kovalev, A. M. 2011  
 Kovalev, F. S. 307, 7084  
 Kovalev, P. V. 10022  
 Kovaleva, L. V. 6847, 10734  
 Koval'skiĭ, I. D. 10527  
 Kovbasenko, G. M. 8752  
 Köves, E. 6448  
 Koutun, V. I. 2993, 2998  
 Kowalska, A. 5268  
 Kowalska, M. 6098  
 Kowles, R. V. 6019, 9552  
 Kowyma, Y. 5271  
 Koyama, Y. 5271  
 Köyljārvi, J. 9615, 10672  
 Koyushev, I. A. 9728  
 Kozachenko, M. R. 300, 302  
 Kozaka, T. 6183  
 Kozaki, I. 7534  
 Kozev, V. I. 9520  
 Kozera, W. 8126, 11098  
 Kozhakhmetov, K. 3906  
 Kozhemyakina, Yu. Ya. 323  
 Kozhevnikov, A. P. 4561  
 Kozhin, A. V. 9100  
 Kozhukhar', E. K. 10477  
 Kozhushko, N. N. 313, 6969, 10363  
 Kozikova, R. K. 9973  
 Kozlov, B. N. 2780  
 Kozlov, N. N. 461  
 Kozlova, B. N. 10347  
 Kozlova, G. Ya. 3118, 4099, 9611  
 Kozlova, L. S. 470, 7306  
 Kozlova, T. I. 44  
 Kozlova, T. N. 4726  
 Kozlowski, T. T. 6574, 10028  
 Kozubenko, L. V. 7024  
 Kozumplik, V. 1374  
 Kozyreva, O. G. 1522  
 Kraevoi, S. Ya. 177, 178, 10299  
 Kraevoy, S. Ya. 10299  
 Kraft, J. M. 4755, 11077  
 Krakar, P. J. 6207, 6208, 7955  
 Krakowiak, A. 513  
 Kraljević-Balalić, M. 6938  
 Kramer, C. L. 4915  
 Kramer, T. 78, 83, 86, 88, 1705, 1710, 1720, 6108  
 Kramer, W. 817  
 Krapivenko, E. F. 10835  
 Krarup, A. 977  
 Krarup H., A. 977, 5550  
 Krasavin, V. F. 520, 7314  
 Krasichkova, G. V. 2742, 11051  
 Krasilovets, Yu. G. 6985, 10256  
 Krasochkin, V. T. 8963  
 Krasova, N. G. 3533  
 Krasuyuk, L. I. 1805  
 Kratky, B. A. 4619  
 Kraus, J. E. 6410  
 Krause, J. W. 5216  
 Krauss, R. E. 3599  
 Kravchenko, A. B. 10256  
 Kravchenko, A. N. 58, 263, 1795  
 Kravchenko, N. A. 1726  
 Kravchenko, V. A. 7712, 7718  
 Kravchenko, V. I. 1795, 10278  
 Kravets', O. F. 2977  
 Kravtsova, M. V. 9220  
 Krémár, B. 2185, 2193  
 Kreft, I. 3045, 3203, 8924, 8931  
 Kreh, R. E. 10033  
 Kreis, M. 89  
 Kremkova, L. A. 225, 1906, 4931, 7005, 9505  
 Kremmina, A. 4254  
 Kress, L. W. 2581, 4578  
 Kress, W. J. 2791  
 Krestnikov, A. D. 6495  
 Kretchmer, P. J. 11096  
 Kretova, A. S. 4747  
 Kretschmer, A. E., Jr. 8249  
 Krieg, D. R. 6350  
 Krigsvold, D. T. 10830  
 Krikorian, A. D. 10603  
 Krilova, M. I. 7700  
 Kripal Singh 10249  
 Krishna Prasad 1079  
 Krishna Prasad, K. S. 1237, 1416, 3720  
 Krishna, R. 5709  
 Krishna Rao, M. 1182  
 Krishna Rao, M. S. 9083  
 Krishna, S. 1358  
 Krishna, T. S. 8215, 8216, 9663, 9706  
 Krishnaiyah, V. V. 6746  
 Krishnamurthy, K. 2768  
 Krishnamurthy, R. 2290, 3351  
 Krishnappa, K. 1237, 3720  
 Krishnappa, K. S. 9773  
 Krishnaswami, S. 10121, 10122  
 Kristek, J. 1264  
 Kristensen, K. 4812  
 Krivaya, A. P. 7542  
 Krivchenko, V. I. 3869, 9769  
 Krivoruchko, D. 1592  
 Kröber, H. 8519  
 Krokhin, E. Ya. 643  
 Król, J. 7986  
 Król, M. 1110, 7990  
 Krolow, K. D. 1888  
 Kronstad, W. E. 113, 2959, 5367, 9462  
 Kroon, G. H. 8533  
 Kropis, E. P. 7566, 8408  
 Krsmanović, M. 170  
 Krstić, B. 3392, 4973  
 Krueger, R. W. 7262  
 Krug, H. 841, 5554, 11000  
 Kruger, J. E. 4858  
 Krüger, W. 4061, 9589, 9590  
 Kruppa, V. V. 2895, 3208, 4851  
 Krusche, D. 9189  
 Kruse, A. 5325  
 Kruska, P. D. 2286, 8302  
 Krushilin, A. S. 1842  
 Krylova, M. I. 7700  
 Krymskaya, N. B. 10927  
 Krzymański, J. 3668, 7485  
 Krzywański, Z. 8119  
 Ku, M. K. 4026, 4968, 4988, 8814  
 Ku Om Gupta 1605  
 Ku, S. B. 7511  
 Ku, S. J. 1967, 2659  
 Ku, S. Y. 8813  
 Kuan, C. Y. 5370  
 Kuan, S. L. 4988  
 Kuan, Y. L. 8814  
 Kubara-Szpunar, L. 10419  
 Kubicki, B. 8535, 11025  
 Kubicki, K. 10691  
 Kubjato, F. 6929  
 Kubo, T. 605, 10786  
 Kubyshta, E. V. 10396  
 Kuć, J. 2821, 3702, 5261, 6332, 8539  
 Kucherenko, L. A. 4207  
 Kucheroval, T. P. 7605, 9102  
 Kuchieva, N. A. 7523  
 Kuchkarov, U. 730, 734  
 Kuchko, A. A. 487, 6300, 7317  
 Küchler, M. 5975  
 Kuchumova, L. P. 7002, 10346  
 Kuckuck, H. 8755  
 Kudagamage, C. 395  
 Kudasomannavar, B. T. 9583, 9584  
 Kudla, M. M. 3111, 7115  
 Kudo, S. 6965  
 Kudrev, T. 8690, 10480  
 Kudryashova, G. L. 4612  
 Kudryukova, K. F. 1489  
 Kuei, Y. L. 1967, 2536  
 Kueneman, E. 11164  
 Kuhlman, E. G. 10961  
 Kuhn, C. W. 7755  
 Kühn, G. 8693  
 Kühn, H. C. 1925  
 Kuhn, R. C. 3979, 4902, 10388  
 Kuhna, A. S. 5051  
 Kuhns, L. J. 7316  
 Kuhn, S. L. 6908, 8721  
 Kuiper, H. J. 5058  
 Kuiper, P. J. C. 6387, 6388  
 Kukadia, M. U. 10579  
 Kuksal, R. P. 9926  
 Kukuruzak, E. A. 8385  
 Kukushkin, N. I. 2257  
 Kulandaivelu, R. 4160  
 Kul'baeva, G. I. 7391  
 Kul'biĭ, A. I. 10333  
 Kuldip Singh Dhindsa 3112, 11158  
 Kulenkamp, A. Yu. 1361  
 Kuleshov, G. 4254  
 Kuliev, A. M. 3354  
 Kuliev, R. 7374  
 Kuliev, R. A. 3341, 3356, 10708  
 Kuliev, Sh. B. 180  
 Kulieva, A. V. 545, 3354  
 Kulik, M. I. 159  
 Kulikov, N. V. 4584  
 Kulinich, V. M. 7665  
 Kulkarni, N. 4156, 4165, 4170  
 Kulkarni, R. N. 945, 7874  
 Kulkarni, R. S. 6353, 7489  
 Kulkarni, S. 1104, 1853, 1854, 1863, 1864, 1867, 3968, 3969, 4893, 9486  
 Kullaiswamy, B. Y. 2081, 8882  
 Kulshrestha, V. P. 1757  
 Kumar, A. 733, 986, 2456, 2657, 5374, 8854  
 Kumar, C. S. K. V. 3963, 8760  
 Kumar, D. 1966  
 Kumar, H. 10164  
 Kumar, I. 2151, 8163  
 Kumar, N. R. 2405  
 Kumar, P. 649, 2438, 3901, 4482, 5708, 8857, 10817  
 Kumar, P. R. 859, 1397, 4455, 4485  
 Kumar, R. 1831, 2035, 5031  
 Kumar, R. S. 4164  
 Kumar, S. 2706, 3377, 3741, 5242, 8875, 9010, 9011  
 Kumar, V. 7780  
 Kumaran, K. 9682  
 Kumaraswamy, V. C. 8152  
 Kumari, P. K. 7490  
 Kumashiro, K. 10871  
 Kumashiro, T. 1376, 9034  
 Kumbhare, G. B. 3572  
 Kumbhojkar, M. S. 2547  
 Kume, H. 618, 9852  
 Kuminova, P. I. 10911  
 Kumkum Agarwal 2785, 7045  
 Kummer, M. 5964  
 Kunath, H. 210  
 Kundu, G. G. 7174  
 Kunert, R. 7089  
 Kunev, K. 6406  
 Kung, C. C. 4193  
 Kung, F. H. 1497, 6566  
 Kung, S. 602  
 Kung, S. D. 7443  
 Kunnakh, G. S. 924, 4654  
 Kunte, Y. N. 2327  
 Künzel, G. 8103, 9603, 10539  
 Kuo, C. G. 4707, 5629  
 Kuo, C. S. 1967, 8813, 9906  
 Kuo, C. Y. 9130  
 Kuo, J. Y. 2745  
 Kuo, L. C. 4968, 4988, 8814  
 Kuo, T. 2041, 7095, 10529, 10532  
 Kuo, Y. C. 8177  
 Kupfer, P. 2790  
 Kupkanchanakul, K. 5103, 5108  
 Kupkanchanakul, T. 5108  
 Küpper, K. 3852  
 Kuptsov, N. S. 6, 66, 7303  
 Kuptsova, A. G. 470, 7303, 7306  
 Kuramysov, A. A. 8180  
 Kurata, N. 10594  
 Kurauchi, M. 107  
 Kurbanov, S. A. 771, 8449  
 Kurganskaya, N. V. 7701  
 Kurian, J. 2451  
 Kurihara, A. 6513, 9163  
 Kuritsakēs, A. 9075  
 Kurl'yanchik, I. A. 3799  
 Kurmangalin, K. N. 1909  
 Kurnik, E. 9892  
 Kursakov, A. G. 10915  
 Kursakov, G. A. 699, 706, 6507, 7562  
 Kursakova, L. E. 3550, 6507  
 Kurteva, A. F. 9621, 9626  
 Kurup, A. E. S. 9305, 10117  
 Kusek, C. C. 11167  
 Kushibiki, H. 4029, 4030, 4031, 6055, 8051  
 Kushibuchi, K. 1224, 2115, 7199  
 Kushima, T. 3595  
 Kustlivy, A. A. 828  
 Kustlivyi, A. A. 828  
 Kustova, N. 5476  
 Kusum Malhotra 1611  
 Kusuma Kumari, P. 7490  
 Kusutani, A. 4250, 4251, 4252  
 Kuta, E. 5233  
 Kutarekar, D. R. 2756  
 Kutateladze, D. Sh. 2502  
 Kut'ko, V. S. 1724  
 Kutovoi, A. A. 7063  
 Kuts, F. K. 8252  
 Kutubidze, V. V. 9864, 10213  
 Kuun, H. M. 3634  
 Kuun, S. H. 3775  
 Kuwada, H. 5116  
 Kuykendall, L. D. 5693  
 Kuzina, A. M. 10528  
 Kuz'menko, A. I. 10348  
 Kuz'min, N. A. 6945, 9428, 10349  
 Kuz'mina, O. A. 9219  
 Kuz'mins'ka, T. P. 3076  
 Kuz'minskaya, T. P. 2009, 3076  
 Kuznetsov, Yu. P. 9224  
 Kuznetsova, N. F. 7630



- Kuznetsova, N. V. 65  
Kuznetsova, R. Ya. 632  
Kvachadze, R. V. 1465  
Kvantrishvili, D. G. 10891  
Kvasnikov, B. V. 886, 10980, 10984, 10998  
Kvitko, O. V. 7093, 8846  
Kwei, Y. L. 8813, 9151  
Kwolek, W. F. 804, 4068, 5582, 5583, 8063  
Kwon, B. S. 631  
Kwon, H. M. 3634  
Kwon, K. W. 7636, 8478  
Kwon, S. H. 3766, 3775  
Kwong, J. H. 2333  
Kylin, A. 6387, 6388  
Kyotani, H. 6513  
Kyrtsakis, A. 9075  
Kyzylakova, T. O. 273  
Labana, K. S. 648, 2400, 4453, 7483  
Łabanowska, B. H. 1474  
Labas, Yu. A. 24  
Łabędzka, E. 8328  
LaBerge, D. E. 6088  
Lacadena, J. R. 7981  
Lacey, C. N. D. 1437  
Lachance, R. A. 4287  
Łacicowa, B. 1027, 1103  
LaCroix, L. J. 4822, 4858, 7870  
Lacy, M. L. 8523, 11002  
Ladd, S. L. 7412  
Ladd, T. L. 6336  
Ladeinde, T. A. O. 7753  
Ladizinsky, G. 4719, 6819  
Ladygin, V. G. 64  
Ladygina, E. A. 8976  
Lafever, H. N. 1755  
Lafiandra, D. 7930  
Lagerstedt, H. B. 10942  
Lagomarsino, E. D. 6127, 6244  
Lagutina, L. V. 5649  
Lagutov, G. I. 4864  
Lahne, P. 278  
Lai, K. L. 6170  
Lai, P. C. 8904  
Lai, S. D. 2931  
Lai, S. T. 2931  
Lai, Y. K. 1977  
Laignelet, B. 4212, 8189  
Laing, E. M. 5720  
Lakerbai, A. O. 7925, 7956  
Lakhin, A. S. 7662  
Lakhmanov, V. P. 209  
Lakra, B. S. 9072  
Laks, G. A. 1813  
Laks, M. S. 2208, 2223  
Lakshmaniah, V. H. 9886  
Lakshmi, N. 3298, 10842  
Lakshmi Prasad, B. 2200  
Lakshmi Sita, G. 2448  
Lakshminarayana, R. 2382, 7461, 7462  
Lakshminarayana, S. 5458, 7604  
Lal, B. 7895, 8736  
Lal, B. B. 701  
Lal, H. 9922, 10894  
Lal, M. N. 1205, 8195, 8212, 9711  
Lal, M. S. 2715  
Lal, O. P. 3693  
Lal, R. 365, 4420  
Lal, R. S. 2326, 4402  
Lal, S. 2705, 10124  
Lal, S. D. 3598, 9926  
Lal, S. S. 5337  
Lal Srivastava, S. B. 2746  
Lallukka, U. 9615  
Lamarque, C. 1403  
Lamarre, M. 7437, 10773  
Lamb, E. M. 8590  
Lamb, R. C. 3522  
Lamb, R. J. 6439  
Lamberts, D. H. R. 3165, 5111, 5112  
Lambert, D. H. 4285  
Lambert, J. W. 5697  
Lambert, L. 6361  
Lambert, R. J. 1137, 4949, 9540, 10487  
Lamberti, F. 4657  
Lamberts, H. 7838  
Lambeth, V. N. 8540, 8542  
Lambhate, S. S. 10756  
Lambotte, M. 3414  
Lamkin, W. M. 1078  
Lammerink, J. 479, 3465, 4320  
Lamothe, M. de N. de 7571, 7574  
Lamparadze, Sh. S. 9968  
Lampeter, W. 5157, 6874, 7228  
Lamprecht, M. P. 5341, 9044  
Lana, E. P. 7315  
Lanaud, C. 8355  
Lance, G. N. 5767  
Lance, R. 6258  
Lance, R. C. M. 8120  
Lande, R. 3809  
Landeo, J. A. 6308, 7319, 10685  
Landi, P. 254  
Landivar, J. A. 539  
Landré, P. 802  
Lane, H. C. 6360  
Lane, R. P. 5495, 9159  
Lång, L. 9463  
Langcake, P. 6558, 8451  
Langdon, P. W. 6254  
Lange, G. 8859, 9426  
Lange, J. H. de 3574  
Lange, W. 1771, 4324, 6314  
Langer, A. 8508  
Langer, D. K. 1112, 2863  
Langer, R. H. M. 2933  
Langerfeld, E. 509  
Langille, J. E. 105, 106, 7993  
Langridge, J. 8664  
Lanini, F. 3207  
Lantican, R. M. 11128  
Lantmann, A. F. 3864  
Lapčević, R. 3064  
Lapchenko, G. D. 2896, 4851  
Lapina, P. D. 3697  
Lapinskas, P. G. W. 3734  
Lapiński, B. 9501  
Lapoint, T. C. 6370  
Laptev, A. V. 5149  
Lapushner, D. 5628, 8335  
Lara, F. M. 4173  
Larcher, J. 1578  
Laricheva, M. D. 6279  
Larik, A. S. 2917, 9455  
Larina, T. A. 482  
Larionov, Yu. S. 155, 10248  
Larionova, R. Kh. 4929  
Lark, K. G. 6755  
Larkins, B. A. 8045  
Larsen, A. 1242, 10644  
Larsen, A. O. 3629  
Larsen, J. B. 10952  
Larsen, K. 8225  
Larson, R. I. 5899, 7970  
Larsson, K. 10908  
Larter, E. N. 223, 316, 1115, 1883, 1884, 7978  
Lasa, J. M. 6382  
Lashtunova, A. G. 9797  
Lastovich, A. S. 6972  
Lateef, S. S. 3794  
Laterrot, H. 4598, 8500  
Latham, A. J. 8400  
Latheef, M. A. 866  
Latin, R. X. 7342  
Latina, C. A. 5204, 5205, 5656  
Lattimore, M.-A. 10656  
Latypov, A. Z. 6995  
Lauer, F. I. 8282, 8971  
Laughnan, J. R. 1975, 8026, 8027  
Laurinen, E. 4507  
Lautour, G. de 5207  
Lavania, U. C. 1293, 10681  
Lavekar, K. B. 2509  
Laviolette, F. A. 3747, 3749, 5699  
Lavrichenko, V. G. 3939  
Lavrukovich, V. A. 10413  
Lavrushkina, G. S. 136  
Law, A. G. 5189  
Law, C. N. 1080, 4844, 4876, 5847, 5865, 5879, 9387, 9389  
Law, D. P. 2879, 5843  
Lawes, D. A. 2677, 7734  
Lawn, R. J. 4704, 4705  
Lawrence, F. J. 9989, 9990, 9993, 10909, 10925  
Lawrence, G. J. 6923, 8315  
Lawrence, M. J. 5185  
Lawrence, R. H., Jr. 5793  
Lawrence, T. 429, 5200, 5213  
Lawson, R. M. 5697  
Lawyer, A. L. 8345  
Laxman Singh 2753, 3796, 7731  
Laycock, R. W. 7226, 8230  
Layne, R. E. C. 3545, 3546  
Layrisse, A. 6456  
Layton, C. 3636  
Laytou, J.-L. 965, 969  
Lazarev, A. M. 10696  
Lazareva, E. M. 137  
Lazarevich, S. V. 6995  
Lazarovits, G. 919, 7775, 8612  
Lazarte, J. E. 5564  
Lazdovskis, J. 3269  
Lazer, G. 10789  
Lazin, M. B. 7326, 8294  
Lazu, M. N. 6064, 10502  
Lazzaro, C. A. 3001  
Le Tkhi Zon 10549  
Lea, P. J. 6719, 7096  
Leach, J. 10495  
Leach, J. E. 10695  
Leakey, C. 3299  
Leal, F. 4558  
Leal, N. R. 8574  
Leal, T. L. 7747  
Leath, K. T. 6263, 7296  
Leaver, C. J. 6028  
Lebacqz, P. 4824  
Lebeda, A. 1546, 3689, 3691, 4625  
Lebedev, A. V. 307, 4056, 4057  
Lebedeva, A. T. 5612, 7691  
Lebedeva, O. N. 10639, 10640  
Lebedeva, T. V. 199, 7956  
Lebedź, S. 8864  
Lechtenberg, V. L. 4150, 8136  
Leclercq, P. 9888  
Lecoq, H. 5605, 8500, 11012  
Ledeboer, F. B. 10634  
Ledent, J. F. 1707  
Lederman, I. E. 7598  
Ledesma, F. I., Jr. 564  
Lee, B. H. 3095  
Lee, C. H. 3699  
Lee, C. K. 5408  
Lee, C. L. 9939, 9941, 9943  
Lee, C. N. 4012  
Lee, C. S. 569, 2497, 6515  
Lee, C. Y. 1542, 6658  
Lee, D. K. 796, 2497  
Lee, E. J. 385  
Lee, E. S. 3093, 3094  
Lee, E. W. 1226, 1415  
Lee, F. N. 10020  
Lee, G. 5937  
Lee, G. A. 8623  
Lee, H. J. 9509, 9510  
Lee, H. R. 1238, 1239  
Lee, H. S. 3181  
Lee, J. 4252  
Lee, J. A. 10726  
Lee, J. C. 364  
Lee, J. H. 351, 7218, 8915  
Lee, J. I. 631, 635, 3418, 3477  
Lee, J. O. 393  
Lee, J. S. 419, 420  
Lee, J. W. 1807, 3766  
Lee, K. J. 6584  
Lee, K. K. 9130  
Lee, L. F. 7212  
Lee, M. S. 372, 1078  
Lee, R. D. 4310  
Lee, S. C. 7435  
Lee, S. K. 7643  
Lee, S. S. 870, 3029, 3172, 4616  
Lee, S. Y. 350  
Lee, Y. H. 3746  
Leeuwen, L. van 11037  
Lefebvre, A. 11082  
Lefort, G. 448  
Lefort, P. L. 2550  
Legaspi, R. S. 2130  
Legg, J. T. 5364, 5365  
Legg, P. D. 583, 588, 596, 6416, 6417, 7455, 7458  
Leggett, J. M. 1898  
Legocki, R. 2731  
Legowo, L. 5323  
Legrand, M. 1596  
Lehman, W. F. 1260  
Lehmann, C. 2952  
Lehmann, C. O. 1654  
Lehmann, J. 1111, 1251, 3207, 5188, 5960, 7300  
Leigh, T. F. 9824  
Leike, H. 75  
Leisle, D. 3941, 3947, 6925  
Leist, N. 10403  
Leistrumas, K. I. 7081  
Leisy, R. H. 2014  
Leite, J. C. 5835, 5836, 6072, 6907, 6991  
Leite, L. C. 7223  
Leithold, B. 4849  
Lelley, T. 1887  
Lemmers, M. 2777  
Lemmien, W. A. 1502  
Lenartowicz, W. 7582, 8406  
Lendini, M. 3959  
Lenina, V. 1456  
Lennard, J. H. 10699  
Lenné, J. M. 3633, 4313  
Lenoir, H. 9703  
Leomo, E. 567  
León-Esperanza, R. Y. 8646  
León González, J. P. 10135  
León, J. 1671  
León, J. L. de 10426  
Leonard, K. J. 1692, 4068  
Leonel Neto, M. 6343  
Leonova, N. S. 5877  
Leonova, T. G. 4498  
Leont'ev, A. I. 10919  
Leont'ev, F. P. 3911, 7909, 10298  
Leont'eva, E. I. 10919  
Leplinskiĭ, Yu. I. 5536  
Leps, W. T. 5221  
Leshchenko, V. V. 5162, 7225  
Lesins, I. 996  
Lesins, K. 6242, 8254  
Lesins, K. A. 996  
Lešková, O. 3278  
Leslie, J. 6986  
Lesnichii, V. P. 698  
Lesovoĭ, M. P. 5926, 9427  
Lespinasse, Y. 682, 3506, 3513  
Lessman, G. M. 10483  
Lester, D. T. 804  
Lester, R. N. 928, 995  
Leť, G. M. 6544  
Letchworth, M. B. 2619  
Leto, K. 3043, 9568, 9569  
Leto, K. J. 3043  
Letova, G. M. 10272  
Leu, L. S. 3411  
Leue, E. F. 4337, 7324  
Leukhina, T. N. 3350, 6349  
Leuschner, K. 4420, 7430  
Levandovskaya, L. I. 9209  
Levchenko, E. A. 1725  
Levenko, B. A. 6930  
Levin, G. M. 1482, 9999  
Levings, C. S. 3048  
Levings, C. S., III 250, 1975, 3048, 4971, 8026, 8027, 9531, 9532, 10438  
Levites, E. V. 6384  
Levitin, M. M. 3871  
Levitskaya, L. I. 4526, 9944  
Levkovskaya, O. A. 3208  
Levy, A. 5392  
Levy, D. 7335  
Lew, E. J.-L. 4825  
Lew, J. C. 8642  
Lewis, D. 6825, 8361, 10208  
Lewis, E. J. 427, 5181, 8237, 9384, 9731  
Lewis, T. D. 1902  
Lewis, T. L. 2483



- Lewis, W. H. 5743, 5746, 6832, 6838, 6839, 6840, 7849
- Li, C. C. 345, 4786, 4899, 5127
- Li, C. H. 569
- Li, C. L. 3908, 9906
- Li, C. M. 8839
- Li, C. P. 5128
- Li, C. S. 3953
- Li, D. C. 1703
- Li, G. S. 2932
- Li Gi Ryong 9672
- Li, H. H. 9447
- Li, H. J. 2911
- Li, H. L. 1704, 9098
- Li, J. L. 3908
- Li, J. M. 8839
- Li, J. X. 569
- Li Ju Wan 9672
- Li, K. S. 2932
- Li, L. B. 5122
- Li, L. P. 5122
- Li, L. T. 8697
- Li, M. F. 2107
- Li, P. H. 506, 6299, 6322, 7334
- Li, S. C. 6654
- Li, S. J. 6519
- Li Su Nam 9672
- Li, T. C. 1703
- Li, T. G. 4209
- Li, T. K. 4209
- Li, T. S. C. 4648, 6654
- Li, W. A. 9040, 9041
- Li, W. H. 1613
- Li, W. P. 9447
- Li, X. L. 1704
- Li, X. R. 2911
- Li, Z. B. 5128
- Li, Z. Q. 4899
- Lian, H. C. 6045
- Liang, C. 9097
- Liang, C. E. 9674
- Liang, C. L. 3346
- Liang, C. Y. 2146
- Liang, G. H. 5216, 7137
- Liang, H. C. 9671
- Liang, H. M. 9670
- Liang, H. Q. 6045
- Liang, Z. L. 3346
- Liao, C. I. 5588
- Liao, H. H. 4536
- Libby, J. L. 5590
- Licci, D. 10327
- Lichou, J. 716
- Lichter, R. 5738, 10812
- Liebhart, P. 6767
- Liebster, G. 3593
- Liferova, V. V. 2523
- Likhodzievskaya, A. A. 532
- Likhonos, F. D. 7531
- Likhtenberg, A. I. 2938
- Lillehoj, E. B. 4068, 8063
- Lim Eng Siong 7736
- Lim, M. S. 351
- Lim, S. H. 4538
- Lim, S. M. 4065
- Lima, E. F. 4700
- Limina, L. N. 10860
- Lin, B. Y. 1956, 6013, 9534
- Lin, C. P. 2136
- Lin, C. Q. 3679
- Lin, C. Y. 8555, 8556, 9278
- Lin, F. H. 2144, 6174
- Lin, F. X. 2144
- Lin, H. C. 909
- Lin, H. S. 1184
- Lin, L. C. 1672
- Lin, L. F. 4773
- Lin, M. H. 8177
- Lin, S. C. 909
- Lin, S. S. 1184
- Lin, T. F. 8898
- Lin, W. L. 6175
- Lin Wu 3234
- Lin, X. S. 1184
- Lin, X. Z. 909
- Lin, Y. H. 4361
- Lin, Y. S. 1231
- Lin, Z. P. 2136
- Linchevskii, A. A. 2039, 10518
- Lincoln, D. E. 4768
- Lind, P. 3645
- Linde-Laursen, I. 8090
- Lindgren, D. T. 8938, 11106
- Lindhout, W. H. 5058
- Lindquist, J. C. 8203, 8204
- Lindsay, R. C. 4602, 5549
- Lindsey, D. L. 7287
- Line, R. F. 6982, 7885, 10382
- Ling, C. C. 5126
- Ling, D. H. 2146
- Ling, J. J. 5126
- Ling, K. C. 2176
- Ling, T. H. 2146, 9674, 9676
- Ling, Z. Z. 5126
- Lingappa, S. 6119
- Linhares, A. G. 1789
- Link, G. 4017
- Linnik, V. M. 322, 7119
- Lino, S. M. 5698
- Linskens, H. F. 1980
- Lipe, J. A. 5493, 9103, 9154
- Lipe, W. N. 5492
- Lipiński, J. 7230
- Lipps, P. E. 3965
- Liptay, A. 4603, 5624, 7707
- Lira, M. A. 6343
- Lisenko, S. V. 512
- Lishchuk, A. I. 9102
- Lisich, V. V. 102, 155, 8715
- Lisichenko, V. N. 7630
- Liska, J. 6550
- Lisovii, M. P. 5926
- Lisovskaya, Z. I. 298
- Lisovskii, G. M. 3895
- Litovchenko, I. F. 10527
- Little, T. M. 4786
- Litton, C. C. 583, 588, 3422, 6416, 6417, 7458, 7475
- Litun, P. P. 6860, 6946
- Litvinenko, N. A. 131, 3924
- Litvinov, N. M. 5475
- Litvinov, V. M. 173
- Litvinova, M. K. 9224
- Litvinova, V. I. 123
- Litvinova, V. M. 9982
- Litz, R. E. 5463
- Liu, C. C. 3679, 4203
- Liu, C. F. 3475
- Liu, C. M. 1231
- Liu, C. Y. 4855
- Liu, D. J. 6167, 6171
- Liu, D. L. 3346
- Liu, E. H. 9542
- Liu, G. L. 9000
- Liu, H. T. 5280
- Liu, J. C. 2932
- Liu, J. F. 3475
- Liu, J. M. 1231
- Liu, K. L. 9000
- Liu, K. M. 1231
- Liu, K. S. 2006, 2007
- Liu, L. F. 4775
- Liu, L. J. 573
- Liu, M. C. 7413
- Liu, R. Q. 2932
- Liu, S. C. 2475, 9105
- Liu, S. Q. 2475
- Liu, T. C. 2931
- Liu, T. L. 3346
- Liu, T. Y. 4855
- Liu, W. C. 1856
- Liu, W. Z. 1856
- Liu, Y. H. 9079
- Liu, Y. L. 2446
- Liu, Z. C. 2931
- Liu, Z. Q. 4203
- Liverani, A. 7564, 8403
- Livers, R. W. 4835, 9492
- Livingston, R. S. 5322
- Liyanage, D. V. 1468, 6524
- Lloyd, D. G. 10206
- Lloyd, D. L. 6254, 6256, 6257
- Lloyd, H. L. 1922, 10757
- Lloyd, J. L. 2717
- Lo, C. C. 368, 5763
- Lo, C. L. 3368
- Lo, K. 386
- Lo, S. H. 3669
- Lobanov, E. M. 5473
- Lobanov, G. A. 5421, 7557
- Lobanov, N. A. 978, 10169
- Lobato, E. 3865
- Lobovikov, N. N. 10645
- Lobovikova, V. F. 10645
- Lockwood, D. W. 3518, 9987
- Lockwood, G. 5364, 5365, 5366, 6428, 9049
- Lockwood, J. L. 4742
- Lodh, S. B. 380
- Lodha, M. L. 1036, 1996
- Lodhi, G. P. 1903, 2403, 3460, 3739, 4131, 4132, 7143, 8883
- Loeering, W. Q. 10385
- Loera, J. 5011
- Loesch, P. J., Jr. 4046, 4945, 5010, 6023
- Loginov, I. Ya. 1323, 9780
- Loginov, Yu. P. 2869, 4869
- Loginova, M. A. 7024, 7027
- Logunova, N. A. 1726
- Logvinenko, V. F. 10245
- Løhde, J. 5053, 8870
- Loiselle, R. 4082
- Loladze, D. V. 1386
- Lombard, P. 10868
- Lombardo, G. 4566, 10010
- Lombardo, V. 4572
- Lomovskikh, Yu. A. 10949
- Long, A. H. 8037
- Long, D. L. 3999, 10387
- Long, J. A. 6237
- Long, R. C. 607
- Longchamp, J.-Y. 1044
- Loo, K. S. 2713
- Loo, S. W. 8689
- Lookhart, G. L. 1593, 10322, 10323
- Loomis, K. F. 360
- Loomis, R. S. 2340
- Loonan, D. V. 286, 7074
- Lopatin, V. M. 512
- Lopatina, O. I. 10193
- Lopes, C. R. 4449
- López C., R. 7749
- López García, H. 10100
- López-Pérez, E. 8803
- López-Sáez, J. F. 2784
- Lord, W. J. 8388
- Lorenc-Plucińska, G. 3643
- Lorenz, R. J. 3244
- Lorenzi, J. O. 579, 3409
- Lorenzoni, C. 1935, 5997, 7061, 8442, 8798
- Loschiavo, S. R. 6097
- Loseva, Z. I. 7051
- Loshak, I. F. 7005, 9505
- Loskutov, N. F. 1041
- Lošonský, L. 6550
- Lotan, J. E. 810
- Lotfy, N. 2459
- Louarn, J. 8354
- Lougheed, E. C. 2482
- Loughlin, S. A. R. 6667, 11065
- Louie, R. 4073, 7075
- Louis, H. I. 7573
- Loukas, M. 9897
- Louvel, D. 8210
- Löve, A. 1679, 3861, 7848, 10228
- Lovell, P. A. 8451
- Lovett, J. V. 6229
- Lowe, C. C. 7285
- Lowe, H. J. B. 2667, 2865
- Lower, R. L. 888, 7686, 11022
- Loy, J. B. 8530
- Lozano, J. C. 4422, 6393
- Lozanov, P. 6636
- Lu, C. 9624
- Lu, C. T. 3368
- Lü, D. Y. 4208
- Lu, J. D. 3368
- Lu, T. M. 9099
- Lu, T. Y. 4208
- Lu, W. L. 8813, 9854
- Lu, Y. C. 2712
- Lu, Y. G. 5128
- Lu, Y. K. 5128
- Lubberts, H. 5578
- Lubis, S. H. A. 6798
- Lubnin, A. N. 6859, 10276, 10553
- Lucier, B. 3810
- Luck, R. F. 5539
- Lucretti, S. 8336
- Łuczkiwicz, T. 6432
- Ludueña, P. M. 4472
- Lueschen, W. E. 3771
- Luesink, B. 4234
- Lugg, D. G. 1587, 4721
- Lugo-López, M. A. 236
- Luh, B. S. 344
- Lühe, H. 156, 157, 5888, 5889
- Lühe, W. 156, 157, 5888, 5889
- Luizzi, D. 95
- Lukács, P. 8367
- Lukasheva, V. N. 4328
- Lukashevich, M. I. 4306, 9760
- Lukashevich, N. P. 5951
- Łukaszewski, A. 8777, 9501
- Luke, H. H. 1875, 10407, 10408
- Luke, P. 330
- Lukin, V. D. 9100
- Lukitsa, V. I. 6479
- Luk'januk, S. F. 5947
- Lukmanova, F. Kh. 4753
- Lukoki, L. 4708
- Lukovnikova, G. A. 2773
- Luk'yan, A. M. 7704
- Luk'yanenko, A. N. 4647
- Luk'yanenko, L. G. 2192
- Luk'yanenko, L. M. 6051, 7060
- Luk'yanenko, N. M. 2058, 7080
- Luk'yanets, V. N. 9212
- Luk'yanova, M. V. 293, 313
- Luk'yanyuk, S. F. 221, 5947
- Lumaret, R. 418
- Lunderstädt, J. 6593
- Lundgren, L. 2654, 5622
- Lundin, P. 8073
- Lundquist, A. 8225
- Luneva, M. V. 1052
- Luneva, M. Z. 592, 593, 2362
- Luneva, V. M. 3912
- Luntungan, H. T. 6524
- Luo, C. C. 368, 5763
- Luo, J. L. 3368
- Luo, K. 386
- Luo, Q. Z. 368, 5763
- Lupotto, E. 2915, 3185
- Lupton, F. G. H. 1747
- Lush, W. M. 4698, 4699, 8591
- Luskin, M. 9
- Luspot, M. 716
- Luthra, J. K. 8770
- Luthra, J. P. 986
- Luthra, O. P. 4847, 10316
- Luthra, Y. P. 7143, 8883
- Lutkova, E. N. 693, 696, 7555
- Lutova, L. A. 1522
- Lutyńska, R. 2249
- Lutze, G. 4819
- Luukkanen, O. 3639
- Luz, W. C. da 5923
- Lužný, J. 4607
- L'vova, P. M. 3116, 3117, 4080, 4089
- Lyakhova, N. F. 7238
- Lyakhovkin, A. G. 8912
- Lyfenko, S. F. 2928
- Lyla, K. R. 2533, 3605
- Lyon, F. L. 1698
- Lyon, J. L. 1105
- Lyrene, P. M. 4530, 4534, 4552, 6533, 9936
- Lysak, S. A. 1178
- Lysenko, I. N. 703
- Lysenko, T. D. 5735
- Lysikov, V. N. 263, 264, 10222
- Lyubimova, L. L. 7531
- Lyubimova, V. F. 116, 117
- Lyubimtseva, I. S. 10542
- Lyubimtzeva, I. S. 10542
- Lyushnyak, V. P. 578
- Lyutarevich, A. A. 5799, 6093
- Ma, C. 5280
- Ma, C. P. 2284
- Ma, I. F. 3475
- Ma, R. H. 4731
- Ma, T. 5280
- Ma, T. P. 2284
- Ma, Y. F. 3475
- Ma, Y. H. 4731



- Maan, S. S. 1873, 5872, 7897  
 McArdle, R. N. 6867  
 MacArthur, L. A. 10324  
 McBee, G. G. 1187  
 McBlain, B. A. 4725, 6762  
 Maccaferri, M. 1311  
 McCall, L. L. 2286, 8302  
 McCarty, J. C. 2315, 6361  
 McCarty, J. C., Jr. 539, 6359  
 McCaslin, B. D. 8942  
 McCausland, J. 1744  
 Macchia, M. 2880  
 McClean, P. 5657, 7741  
 McCloud, D. E. 4484  
 McClure, W. F. 2381  
 McCollum, G. D. 3673, 5255, 8507  
 McCollum, G. K. 1325  
 McComb, J. A. 2815, 8662, 9358, 9360  
 McConnell, R. L. 2003  
 McCormick, S. 6039  
 McCoy, T. J. 4823  
 McCreight, J. D. 5595, 5596, 6633, 7682, 7839, 11005, 11007  
 McCullagh, S. F. H. 6378, 6379  
 McCutchen, T. 2717, 10483, 10497  
 McDaniel, M. E. 5971  
 McDavid, C. R. 1362  
 MacDonald, D. H. 3771  
 McDonald, G. I. 1513, 6596  
 McDonald, M. B., Jr. 7989  
 MacDonald, W. L. 2558, 2564  
 McDowell, R. E. 73  
 McDuffie, K. L. 6419  
 McElgunn, J. D. 5213  
 McElroy, F. D. 10901  
 McEwan, J. M. 2875, 4837  
 Macfarlane, T. D. 4245  
 McFerson, J. 9295  
 McGibbon, R. 471  
 McGilchrist, C. A. 4816  
 McGinnity, P. J. 11159  
 McGranahan, G. 10951  
 McGraw, R. L. 4484  
 McGregor, D. I. 4456  
 McGuire, C. F. 1167, 2953, 9612  
 McGuire, P. E. 1781, 1782, 2903, 2904  
 Macháček, Č. 2411  
 Machado, J. R. 1363  
 Machado, M. O. 8896  
 Machado, V. S. 1406  
 McHale, N. A. 8971  
 Machida, Y. 7556  
 Machis, Yu. V. 9228  
 Machold, O. 2044  
 McIlrath, W. O. 7204  
 McIntosh, L. 4017  
 McIntosh, M. S. 6247, 8253, 10659  
 McIntosh, R. A. 111, 201, 2883  
 McIntyre, G. A. 6328  
 McIntyre, J. L. 1384  
 Mackay, G. 1375  
 Mackay, G. R. 3303  
 Mackay, J. H. E. 2801  
 McKeand, E. 8454  
 McKee, C. G. 7433  
 McKee, G. W. 6110, 9509, 9510  
 MacKenzie, D. R. 4818, 4826, 4829, 4898, 6058, 6190, 7342, 10377, 10617  
 McKenzie, H. 5844, 5899, 7935  
 Mackenzie, J. D. 4343, 10865  
 McKenzie, K. S. 1219  
 McKenzie, R. I. H. 3002, 7991  
 Mac Key, J. 1746, 6858, 8691, 9417  
 Mackiewicz, H. O. 11028  
 Mackiewicz, T. 6432  
 McKinley, C. M. 10460  
 McKinney, B. K. 311  
 MacKinnon, C. 3103  
 MacKinnon, J. C. 1968  
 McLachlan, K. D. 5904  
 McLaughlin, R. J. 6245  
 McLaurin, W. J. 11040  
 MacLean, D. B. 5430  
 McLeod, J. G. 7994  
 McLeod, M. J. 657  
 McLeod, R. W. 7714  
 McLeod, S. 2971  
 McMillan, D. E. 7038  
 McMillian, W. W. 3085, 7072, 10509  
 McMillin, D. E. 1132, 1945, 1946, 1989, 3035, 4979, 4983, 8035  
 McMurtrey, J. E., III 3248, 6251  
 McNabb, H. S., Jr. 10029  
 MacNair, M. R. 2239  
 McNaughton, I. H. 840, 3662  
 McNeal, F. H. 2953, 7882, 7884  
 MacNeil, P. A. 7486  
 McNeil, P. H. 6222  
 MacNeill, B. H. 3723, 11059  
 McNeill, J. 1420  
 McNeilly, T. 9721  
 McNew, R. W. 1195, 4145  
 McNicol, R. J. 761  
 McPherson, R. M. 2738  
 McQuade, H. A. 2908  
 McSweeney, E. B. 457  
 Macura, P. 10197  
 McVeigh, K. J. 10634  
 McVetty, P. B. E. 96, 3893, 3894, 6684  
 McVey, D. V. 1833  
 Madaan, R. L. 10003  
 Madalageri, B. B. 718  
 Madamba, C. P. 7349  
 Maddock, S. E. 9239  
 Madhava Menon, P. 964, 9318, 9682  
 Madhusoodanan, K. J. 3489  
 Madhusudan, T. 5357  
 Madhusudana Rao, D. V. 10820  
 Madhusudana Rao, M. 5654  
 Madjarova, D. 10188, 10189, 11001  
 Madzharova, D. 6278, 10065, 10188, 10189, 11001  
 Madzhitova, K. D. 530, 4382  
 Maeda, E. 10606  
 Maeda, K. 3336  
 Maehara, T. 9851  
 Maekawa, M. 10597  
 Maeng, D. J. 2940  
 Maertens, C. 9317  
 Maese, G. 10570  
 Maesen, L. J. G. van der 3781, 4669, 4763  
 Mafra, R. C. 7751  
 Magalimova, R. R. 3265  
 Magaling, L. 8173  
 Magar, N. G. 2075  
 Magassy, L. 1367, 9842  
 Maggini, F. 10327  
 Maggioni, A. 7610  
 Maggiore, T. 2057, 5997, 7061, 8798  
 Maglio, D. 371  
 Magnani, G. 4871  
 Magomedova, R. A. 6503  
 Maguire, M. 10454, 10455  
 Maguire, M. P. 1951, 1955, 4784, 6014, 8808, 8809, 10457  
 Magulaev, A. Yu. 9744  
 Maguling, M. A. 10614  
 Magyarosi, T. 11083, 11084, 11085  
 Mahaboob Ali, S. 10592  
 Mahadevappa, M. 2120, 2159, 8173, 8193, 9661  
 Mahajan, R. 9834  
 Mahal, G. S. 1808, 9442  
 Mahapatra, D. 9654  
 Mahapatra, I. C. 9654  
 Mahub Ali 8995  
 Maheshwari, M. L. 10838  
 Maheshwari, N. 1611  
 Maheshwari, S. C. 660, 1611, 4790, 7815, 7819, 8566  
 Mahill, J. F. 6357  
 Mahishi, D. M. 945, 10114  
 Mahmoud, I. 7576  
 Mahmoud Mohamed-Bachir Solh 8575  
 Mahmoud, S. A. 937, 962  
 Mahna, S. K. 1521  
 Mahon, J. D. 7786  
 Mahrshi, R. P. 8985  
 Mahto, D. N. 319  
 Maidebura, V. I. 10861  
 Maier, L. 1549  
 Maimistov, V. V. 1689  
 Maini, S. B. 5337  
 Maison, P. 3564, 5449  
 Maistrenko, A. G. 4027  
 Maisuradze, N. I. 9966  
 Maiti, R. K. 7122, 8885  
 Maiti, S. N. 10737  
 Maitulina, Yu. K. 1505  
 Maizbukhovskaya, V. V. 10551  
 Majarova, D. 10065  
 Majid, M. A. 8622  
 Major, D. J. 3862, 6024, 7057, 8024, 9745  
 Majumder, B. 7187  
 Majumder, M. K. 662, 4217, 10735  
 Majumder, N. D. 8731, 9018  
 Majumder, P. K. 5460  
 Mak, C. 1660, 2713, 5683, 5684  
 Makagonov, E. I. 2741  
 Makarova, G. I. 3205, 3261, 3271  
 Makde, K. H. 2046, 8113  
 Makhalin, M. A. 212, 230, 4002  
 Makhane, I. A. 10861  
 Makhdum, M. I. 9810  
 Makhmedov, A. M. 4769  
 Makhmet, B. M. 7618  
 Makhmudov, T. 7385, 10710  
 Makhov, A. I. 9905  
 Maki, Y. 3245  
 Makita, M. 7656  
 Makne, V. G. 2426, 2439, 8134, 8370, 9015, 10187  
 Makogon, A. I. 578  
 Makogonov, E. I. 981, 1599, 2741, 7845  
 Makovskaya, L. N. 9963  
 Makovskaya, S. A. 7345  
 Makowski, N. 4466  
 Makrinova, I. A. 4647  
 Maksimenko, V. P. 10275  
 Maksimov, N. G. 218  
 Maksimova, I. N. 7542  
 Maksimova, V. I. 218  
 Malabuyoc, J. A. 5113  
 Malavolta, E. 7149  
 Malaya, Rubber Research Institute of Malaysia 665  
 Mal'chikov, Yu. A. 2548  
 Malcolmsen, J. F. 6331  
 Málek, J. 1256, 7292  
 Malek, M. A. 5696  
 Malepszy, S. 1016  
 Malgar, S. S. 10714  
 Malhi, N. S. 8060  
 Malhi, S. S. 9815  
 Malhotra, K. 1611, 7815  
 Malhotra, R. S. 7756  
 Malhotra, V. V. 3071  
 Malicki, L. 1316  
 Maliga, P. 8331, 10789  
 Malik, B. S. 10287  
 Malik, C. P. 2401  
 Malik, D. S. 10680  
 Malik, H. C. 1776  
 Malik, M. N. 6526, 6634  
 Malik, M. N. A. 9810  
 Malik, R. S. 10054  
 Malik, S. S. 1217  
 Malinski, K. 4894  
 Mall, T. P. 2765  
 Mallanagouda, A. B. 7165  
 Mallanagouda, B. 4178, 7165, 7170, 7173, 10584  
 Mallanagowda, B. 10584  
 Mallett, J. B. 1929  
 Mallick, A. K. 2162  
 Mallick, E. H. 1216, 2145  
 Mallinsky, K. 4894  
 Malmberg, R. L. 606, 2363  
 Malo, V. 8774  
 Malone, M. J. 1687  
 Malone, M. T. 948  
 Mal'tsev, N. P. 3270  
 Mal'tseva, L. T. 102, 8715  
 Małuszyński, M. 8108  
 Malý, I. 4621  
 Malychenko, V. V. 2479  
 Malykhin, V. G. 2261, 8978  
 Malykhina, L. M. 8980  
 Malys, L. K. 4714  
 Mamaeva, T. M. 9117  
 Mamatov, N. A. 275, 10485  
 Mamdouh Omar 6678, 6682, 6685, 6689  
 Mamedov, F. 10710  
 Mamedov, K. 1341, 2300, 3342, 8988  
 Mamedov, M. I. 2991  
 Mameishvili, L. K. 9963  
 Mamicpic, N. G. 8630  
 Mamidwar, R. B. 2325  
 Mamporiya, F. D. 10890  
 Mamukov, V. A. 5490  
 Manchester, C. 9524  
 Mandal, B. D. 10735  
 Mandal, B. K. 6142  
 Mandal, S. K. 5405  
 Mandel, S. P. H. 8659  
 Mandl, F. A. 10139, 11154  
 Mandour, S. A. 3061  
 Mandrik, V. Yu. 2466  
 Mane, S. S. 10725  
 Manetti Filho, J. 3864  
 Manga, V. K. 226, 8782  
 Manglitz, G. R. 3242, 5208  
 Mangual Crespo, G. 2694, 10989  
 Mani, M. 4182  
 Manian, S. 4222, 9707  
 Manibhushanrao, K. 4222, 9707  
 Manickam, A. 5134  
 Manion, P. D. 3627  
 Maniu, A. 379  
 Manjunath, A. 10819  
 Manmana, P. N. 2873, 5988  
 Mann, G. C. 5801, 5802  
 Mann, H. 6913  
 Mannan, M. A. 8648  
 Manner, R. 8701  
 Manninger, M. 8711  
 Manocha, V. P. 1622  
 Manolov, A. 6414  
 Manoucharyan, M. A. 3882  
 Mans, R. J. 6009, 8026, 8027  
 Mansaray, M. S. 3174  
 Mansat, P. 7243, 7254  
 Mansurov, Kh. 538  
 Mansurov, N. I. 4372  
 Manucharian, M. A. 3882  
 Manucharyan, M. A. 3882  
 Manwiller, A. 8063  
 Manzer, F. E. 10684  
 Manzo, P. 5355, 6477, 10005  
 Manzocchi, L. A. 8029  
 Manzoor Ahmad 7375  
 Manzoor Ahmad Bhutta 6887, 7126  
 Manzoor Ahmad Khan 8991, 8992, 8993  
 Manzoor Ullah 6650  
 Manzyuk, S. G. 5370  
 Manzyuk, V. T. 300, 2016, 7080  
 Mao, Y. L. 8839  
 Mapa, R. B. 5359  
 Mapelli, S. 3709, 11053  
 Mapes, J. 2286, 8302  
 Marais, G. F. 1093, 7944  
 Marais, J. 7616  
 Marangoni, B. 1426, 1433  
 Marappan, P. V. 2758, 9300  
 Marassi, J. 8203, 8204  
 Marble, V. L. 1260, 3255  
 Marca, G. 9240  
 Marcellos, H. 3958  
 Marchant, W. H. 1042  
 Marchenko, O. Z. 3696  
 Marchetti, M. A. 1209



- Marchi, P. 4785  
 Marchoux, G. 9911  
 Marchylo, B. A. 3941, 3947, 4858, 6088  
 Marciano, A. P. 1240  
 Marcondes, D. A. S. 1363  
 Mardamshin, A. G. 2949, 3925  
 Marderosian, A. H. der 2318  
 Mardilovich, M. I. 2927  
 Mardzilovich, M. I. 2927  
 Maréchal, R. 4708, 10089  
 Marek, J. 9468  
 Marekar, M. V. 7798  
 Marekar, R. V. 4760, 6816  
 Mărgineanu, L. 1445  
 Margna, E. 6084  
 Margna, U. 6084  
 Mariani, A. 7274  
 Mariani, B. M. 2873, 5988  
 Mariani, G. 1999  
 Mariappan, V. 8201  
 Marie, R. 7197  
 Marimuthu, T. 10126  
 Mar'ina, O. I. 8934  
 Marinesco, O. 4396  
 Marinescu, M. 6906  
 Marino, E. 10511  
 Mariotti, D. 5179  
 Mariupol'skaya, M. A. 704, 745  
 Markham, N. T. 10675  
 Markhlevskaya, T. V. 4242  
 Markina, E. M. 3553  
 Marko, A. F. 97, 98, 121  
 Marko, V. F. 98  
 Markova, E. F. 2225  
 Markvart, V. R. 5523, 5525, 5526  
 Marlatt, R. B. 5459  
 Marlow, H. 7690  
 Maroa, S. M. 4009  
 Marocco, A. 2057  
 Marquez, F. 4473  
 Marrewijk, G. A. M. van 5983  
 Marrewijk, N. P. A. van 3659, 5565, 5574  
 Marriott, J. 763  
 Marro, M. 8391  
 Maršálek, L. 3431, 3437, 4434  
 Marschner, H. 6387, 6388  
 Marshall, D. R. 2789, 6754, 7774, 10151, 10260  
 Marshall, D. S. 4221, 5141, 6178  
 Marshall, G. A. 1758  
 Marshall, H. G. 4927, 10405  
 Marshall, R. J. 7923  
 Marta, L. 4472  
 Martens, H. 5043  
 Martens, J. W. 3998, 5973, 6884, 7991  
 Mårtensson, P. 2678, 7283, 11083, 11084, 11085  
 Martín, A. 1774, 2682  
 Martin, C. 1928, 10697  
 Martin, C. C. 1929  
 Martin, F. A. 4403  
 Martin, F. W. 930, 3705, 8645  
 Martin, J. K. 8302, 10335  
 Martin, J. M. 1934, 3211, 4010  
 Martin, K. J. 763  
 Martín, L. M. 8732  
 Martin, L. W. 9989, 9993  
 Martin, M. W. 8982  
 Martín Martín, L. M. 3898, 8732  
 Martin, P. B. 8709  
 Martin, R. J. 7762  
 Martin, S. S. 6023  
 Martin, T. J. 4835, 4919, 9492  
 Martin, W. J. 8299  
 Martinek, V. 1803  
 Martinez, A. 6687, 6695  
 Martínez A., M. A. 6716  
 Martínez, C. P. 353  
 Martínez-Crovetto, R. 10795  
 Martínez Garza, A. 10225  
 Martinez-Gonzalez, J. M. S. 7961  
 Martins, M. C. del P. 7748  
 Martins, P. S. 4301  
 Martinson, C. A. 5010  
 Martinsson, O. 9201  
 Martirosyan, E. L. 7614  
 Martos, C. de 4562  
 Martusewicz, J. 8937  
 Marty, G. 8420  
 Marty, J. P. 8452  
 Marty, J.-R. 10145  
 Marum, P. 3228  
 Marupov, R. 3371  
 Maruyama, T. 2839, 4774, 4776, 4777, 6829  
 Marwaha, K. K. 7073  
 Marx, G. A. 1600, 5706  
 Marykutty, K. C. 9996  
 Mas, P. 9094, 9909  
 Masajo, T. M. 7200, 9498  
 Masaoka, Y. 7144, 7145, 7146  
 Masaya, P. 2687  
 Mascarenhas, A. F. 3632, 7577  
 Mascarenhas, H. A. A. 11175  
 Mascia, P. N. 1943, 1985, 4016, 4715, 4716, 8600  
 Mashanov, V. I. 10834  
 Mashev, N. 6050  
 Mashkin, S. I. 966, 2496  
 Mashnenkov, A. S. 9579  
 Maskina, M. S. 2158, 8213  
 Maslenkova, L. I. 3134, 7116  
 Maslov, A. B. 122, 6865  
 Maslova, G. Ya. 2870  
 Maslova, N. M. 10998  
 Mason, H. L. 8796, 10132  
 Mason, P. A. 4585  
 Massariol, A. 11175  
 Massengale, M. A. 6243  
 Massey, J. 278  
 Massey, J. H. 1042, 7988  
 Massie, I. E. 3422  
 Massonie, G. 3564, 5449  
 Mastenbroek, C. 7840, 9912, 9914  
 Mastrangelo, I. A. 2375  
 Masuda, S. 8832  
 Masyskova, O. V. 2463  
 Matai, B. H. 7731  
 Matano, T. 6196  
 Mate, S. N. 4174  
 Matérn, B. 10964  
 Materon, L. A. 11160  
 Mathai, G. 738  
 Mathema, B. B. 8643  
 Mather, K. 9396  
 Mather, P. J. C. 7589  
 Matheson, R. 9649  
 Mathew, V. 2533, 3605  
 Mathewson, P. R. 1076, 10246  
 Mathiassen, H. P. 7664  
 Mathre, D. E. 5917, 5918, 5919  
 Mathur, A. K. 8985  
 Mathur, B. N. 829, 933  
 Mathur, B. P. 2314  
 Mathur, J. R. 7898  
 Mathur, K. 933  
 Mathur, K. C. 2172  
 Mathur, S. C. 1230  
 Mathur, S. J. 7495  
 Mathur, S. N. 8106, 8116  
 Matignon, B. 2955  
 Matos, A. P. de 1481  
 Matros, A. F. 9506  
 Matrosov, B. F. 7422  
 Matskov, F. F. 5370  
 Matso, R. R. 3947  
 Matsuda, K. 1343  
 Matsuda, T. 7450  
 Matsui, S. 8607  
 Matsukawa, I. 11163  
 Matsumoto, N. 1697  
 Matsuo, R. R. 3941, 3948, 5893  
 Matsuo, T. 4730  
 Matsuoaka, S. 4408, 6376  
 Matsura, T. R. 3540  
 Matsushima, S. 9861  
 Matsuyama, S. 10790  
 Matsuzaki, Y. 7427  
 Matsuzawa, Y. 3678  
 Matta, A. 8560  
 Mattenberger, M. 238, 6914  
 Mattern, P. J. 6908, 8721, 10341  
 Matthews, B. F. 8503  
 Matthews, F. R. 6591  
 Matthews, P. 1424, 1425  
 Matyik, A. 7741  
 Matuz, J. 9464  
 Matveenko, S. N. 6998  
 Matveev, G. G. 3369  
 Matveev, V. A. 3549  
 Matyukhina, L. A. 9488, 10284  
 Matyushkova, N. G. 9507  
 Matzinger, D. F. 3438, 10787  
 Matziris, D. I. 6588  
 Matzk, F. 7260, 8222  
 Mauboussin, J. C. 7505  
 Mauch, T. J. 4791  
 Maurer, R. E. 92  
 Maurinya, Kh. A. 885, 6643  
 Maurya, P. R. 365  
 Mavlyanova, R. F. 821  
 Mawhood, R. P. 165  
 Maxon, N. P. 10471  
 Maxwell, D. P. 1535, 3274, 6260, 8258, 10667, 10668  
 Maxwell, F. E. 7858  
 Maxwell, J. D. 6751  
 May, B. 7316  
 May-Jackson, Y. Y. 394  
 May, K. W. 6215  
 May, R. G. 5156  
 Mayberry, K. S. 8526, 8527  
 Mayee, C. D. 6118, 7164, 8876, 9081, 9082  
 Mayer, G. 8440  
 Mayer, J. 8718  
 Mayes, R. A. 10033  
 Mayilsami, R. 551  
 Mayo, G. M. E. 3379, 8315  
 Mayoodee, N. 4142  
 Maytin, A. 7474  
 Măzăreanu, I. 9783  
 Mazaredo, A. M. 5104, 5105  
 Maze, J. 7646  
 Mazhar H. Nadvi 6612  
 Mazhara, V. N. 1993, 3076  
 Mazhorov, E. V. 40  
 Mazoti, L. 9543  
 Mazoti, L. B. 8022  
 Mazumdar, B. C. 736  
 Mazumder, C. S. 624  
 Mazur, M. 7438  
 Mazur, T. 8291, 8292  
 Mazur, T. G. 4207  
 Mazurek, J. 1074  
 Mazzani, B. 4470  
 Mazzini, F. 3190  
 Mazzucchi, U. 1451  
 Md. Abd-ul-Muttalib Akhanda 2729  
 Md. Abdul Muttalib Akhanda 2729  
 Md. Anwar-ul-Kabir 8196  
 Md. Anwarul Kabir 8196  
 Md. Safi-ul-Alam Bhuiyan 9881  
 Md. Safiul Alam Bhuiyan 9881  
 Meadows, W. A. 5507  
 Mears, J. A. 6837  
 Mecartney, J. L. 2555  
 Mecham, D. K. 9446  
 Meckenstock, D. H. 7138  
 Medeiros, J. A. 7183  
 Medeiros, M. C. 7878  
 Medeiros, O. P. de 6343  
 Medhet K. Hussain 7125, 7126  
 Medina, F. J. 6783, 7785  
 Medina M., B. 8589  
 Medlyn, G. W. 5803  
 Medvedev, A. A. 3647  
 Medvedev, A. M. 147, 2962  
 Medvedev, V. V. 895, 4638  
 Medzhidova, U. 8449  
 Mee, S. S. 7249  
 Meer, Q. P. van der 7669  
 Meeres, J. 454  
 Megahed, M. A. 4379  
 Megorskaya, O. M. 65  
 Mehan, D. K. 2400, 4453, 8902  
 Mehandjiev, A. 11180  
 Mehandzhiev, A. D. 6864  
 Mehete, S. S. 1418, 4373, 4376, 7379, 7384, 9001, 9019, 9256, 10715  
 Mehra, C. S. 10840  
 Mehra, K. L. 6854, 8638, 9503  
 Mehra, R. B. 4204, 6791, 9330, 9332, 9340, 11197  
 Mehrotra, H. N. 7396, 7398  
 Mehrotra, N. 929, 1576, 10680  
 Mehrotra, R. A. 10183  
 Mehrotra, R. S. 7794  
 Mehta, N. P. 7387  
 Mehta, S. K. 3773  
 Mehta, S. L. 1036, 1996, 7148, 8118, 10543  
 Mehta, U. 4762  
 Mehta, Y. R. 2981  
 Mehto, D. N. 10255, 10814  
 Mehwald, J. 6598  
 Meier, V. D. 6237  
 Meignoz, R. 11082  
 Meinel, A. 6255  
 Meinel, G. 2275, 4617, 4618, 7341  
 Meinl, M. 8702  
 Meins, F., Jr. 2364  
 Meirmanov, G. T. 10651, 10653  
 Meisner, J. 3372  
 Meister, B. 3129  
 Meitei, W. I. 8286  
 Meith, H. C. 4577  
 Mekhandzhiev, A. 11180  
 Mekhandzhiev, A. D. 6864  
 Mekhtrova, T. D. 2544, 3580, 3601, 6554, 8430  
 Mela, T. 10672  
 Meland, M. 8405  
 Melchers, G. 8683, 9853, 11042  
 Melekhina, A. A. 746  
 Melenevskii, A. E. 3943  
 Meleshko, L. F. 8453  
 Melikhov, A. A. 10920  
 Mello, S. S. 6376  
 Mello-Sampayo, T. 7919  
 Mel'nik, I. I. 6103  
 Mel'nik, L. S. 9545  
 Mel'nik, V. F. 578  
 Mel'nik, V. S. 4952, 7029  
 Mel'nikov, A. F. 9475  
 Mel'nitskiĭ, V. N. 192  
 Melnitsky, V. N. 192  
 Melo, P. C. T. de 7660  
 Melton, B. 3254, 10664  
 Melville, A. H. 1479, 10924  
 Melz, G. 7016  
 Melzer, R. 6380, 7419, 9840  
 Melzer, R. R. 3597  
 Memon, A. H. 1345  
 Menabde, M. A. 1797, 5653  
 Menabde, V. L. 129  
 Menczel, L. 8331  
 Mendel, R. R. 10779  
 Mendelevski, P. 7235  
 Méndez, A. V. 10749  
 Mendgen, K. 5661  
 Mendlinger, S. 3955  
 Mendoza, H. 7348  
 Mendoza, H. A. 7318, 7350, 8294, 10692  
 Mendoza O., A. 1185  
 Mendoza, U. A. 10692  
 Menendez, T. 2431  
 Menezes, D. 7660  
 Meng, C. H. 3753  
 Meng, Q. X. 3753  
 Mengesha, M. H. 4115  
 Mengistu, A. 4667  
 Menn, W. 8228  
 Menon, P. M. 964, 9318, 9682  
 Menovshchikova, N. Ya. 209  
 Menser, H. A. 7459, 7460  
 Menten, J. O. M. 9995  
 Menzel, M. Y. 6347  
 Menzi, M. 239, 7031  
 Menzies, A. R. 5435  
 Meon, S. 9093  
 Merca, F. E. 4212, 7200  
 Mercer, M. 7439



- Mercer-Quarshie, H. 7506  
 Merckelbach, A. 10432  
 Mercy, S. T. 2751, 6123, 6464  
 Meredith, W. R., Jr. 555, 6356, 6357, 8308, 10729  
 Meriaux, S. 1721  
 Mericle, L. W. 3103  
 Merker, A. 6989  
 Merkle, O. G. 4905  
 Mero, C. E. 9266  
 Merriam, D. C. 10684  
 Merrick, M. M. A. 3692  
 Mersinkov, N. 2017  
 Mertin, J. V. 2854  
 Merwe, A. J. van der 8745  
 Messdag, J. 87  
 Meshchero, E. T. 10067  
 Meshcheryakova, E. A. 3371  
 Meshcheryuk, G. I. 11201  
 Meshkov, V. V. 2929, 3134, 3945, 9507, 10294  
 Meshkova, L. V. 3977  
 Meshram, L. D. 1957  
 Mesquida, J. 9055  
 Messeri, C. 713  
 Messiaen, C. M. 2699  
 Mesterházy, Á. 4897  
 Mészáros, S. 9829  
 Metcalf, E. R. 11020  
 Metcalf, R. L. 11020  
 Mettin, D. 132, 5871  
 Metzger, R. J. 2959  
 Meulemans, M. 8582  
 Meunier, J. 8371  
 Meunier, J. M. 7877  
 Mew, T. W. 2167, 3167  
 Mexia, J. N. 6422  
 Mexico, CIMMYT 2849  
 Mexico, Instituto Nacional de Investigaciones Agrícolas 6706  
 Meyer, D. 7941  
 Meyer, H. 5934, 7957, 7958  
 Meyer, H. K. 7412  
 Meyer, V. G. 3344, 4380, 6357  
 Meyers, S. P. 7275, 7276  
 Mezentsev, A. V. 7278, 10660, 10662  
 Mezentsева, A. I. 2646, 4636  
 Mia, M. M. 8317, 8622  
 Miah, A. A. 8190  
 Miah, N. M. 8190  
 Miah, S. A. 3167, 3194, 3195, 4219  
 Mian, L. S. 6794  
 Miao, S. H. 1967, 8813  
 Miccolis, V. 2672, 2673  
 Michaelis, A. 10097, 10229  
 Michaud, R. 6253  
 Micheltore, R. W. 10063  
 Michlewska, C. 8347, 8348  
 Michna, G. 3210  
 Michurin, I. V. 6472, 6473, 7555, 9100  
 Mičková, M. 8036  
 Micke, A. 85, 4881  
 Micke, W. C. 4577  
 Micu, V. E. 8030  
 Middleton, G. K. 5840, 7883  
 Midmore, D. J. 1362, 5318  
 Miedema, P. 69, 2004, 5985  
 Mielke, H. 5054, 5924  
 Mierzwa, Z. 507  
 Mies, D. W. 1949  
 Mifflin, B. J. 1033, 5045, 6719, 7099  
 Migin, K. V. 5429  
 Migina, O. N. 828  
 Migliori, A. 9911  
 Mignucci, J. S. 5698, 8610  
 Migushova, E. F. 9449, 9479  
 Mihăilescu, D. 6906  
 Mihailov, A. 6551  
 Mihaljev, I. 2882  
 Mii, M. 2379  
 Mijačika, M. 3560  
 Mika, V. 1259, 2224, 7239  
 Mikaelson, K. 3002, 3177  
 Mikami, T. 2347, 2348  
 Mikautadze, N. G. 1625, 2388, 2391  
 Mikhaïlenko, K. Kh. 9578  
 Mikhaïlov, A. 6551  
 Mikhaïlov, L. E. 9181  
 Mikhaïlov, V. A. 498  
 Mikhaïlov, V. G. 7764  
 Mikhail'chik, V. T. 511  
 Mikhailovskaya, O. B. 845  
 Mikhkiev, A. I. 9735  
 Miklašová, M. 1766, 2939, 5857, 9469  
 Miklósné-Juhász, O. 3613  
 Miksch, G. 3993, 5964  
 Miksche, J. P. 7510  
 Miksicek, C. H. 4999  
 Miku, V. E. 1959, 8030  
 Mikulich, N. S. 7051  
 Milbourn, G. M. 5002  
 Milczak, M. 1060, 8710  
 Mileiko, O. E. 5315  
 Milenkov, M. 6506, 9120  
 Miles, D. 7262  
 Miles, J. D. 4426  
 Miles, J. W. 1137  
 Miles, R. L. 4427  
 Milford, G. F. J. 4416, 8325  
 Milholland, R. D. 7595  
 Milić, V. 3767  
 Milicá, C. I. 8816, 9882  
 Miliev, K. 9273, 9279  
 Milinger, M. Ya. 6931  
 Milivojević, D. 3047  
 Miller, B. S. 372, 1076, 1078  
 Miller, D. A. 3256, 6247, 10659  
 Miller, F. R. 1187, 2086, 6124, 7138, 7151, 8143  
 Miller, G. A. 7008  
 Miller, I. L. 335  
 Miller, J. C., Jr. 5667  
 Miller, J. D. 104, 1743, 1832, 3300, 5317, 5841, 6272, 6273, 7880, 7881  
 Miller, J. F. 1354, 6444, 6446, 8310  
 Miller, P. M. 4075  
 Miller, R. C. 6982  
 Miller, R. D. 4431  
 Miller, S. A. 8521  
 Miller, S. D. 2984  
 Miller, S. S. 8387  
 Miller, T. E. 3918, 5866, 5974, 8725, 10295  
 Millet, E. 5874  
 Millett, A. H. 4637  
 Millim, K. 1445, 9107  
 Millington, A. J. 4121  
 Milošević, Z. 2951  
 Milthorpe, F. L. 6518  
 Milyaeva, E. L. 6847  
 Min, K. S. 3093, 3094, 3113  
 Minakova, N. S. 2342  
 Minami, K. 9995  
 Minařík, F. 10520  
 Minarzhik, F. 10520  
 Minchin, F. R. 5710, 5711  
 Minella, E. 2968, 5875  
 Miner, F. D. 3262  
 Minguez Sanz, S. 10930  
 Minhas, A. S. 1857, 3886  
 Minin, I. N. 9803  
 Mink, G. I. 4529  
 Minko, D. G. 6358  
 Minks, A. K. 2774  
 Minnick, D. R. 2230  
 Mino, M. 246, 1988  
 Minocha, J. L. 2066, 2067, 2068, 2069  
 Minor, H. C. 8796, 10132  
 Minson, D. J. 4244  
 Minton, E. B. 4367  
 Minton, N. A. 468  
 Minvielle, F. 3814  
 Mir, A. A. 6075  
 Mirakhmedov, S. M. 1338  
 Miralimov, Yu. M. 2512  
 Miranda C., S. 6717  
 Miranda Colín, S. 6717  
 Miranda, J. H. 6123  
 Miranda, L. N. de 3865  
 Miranda, L. T. de 2012, 4965, 4986, 10200  
 Miranda, M. A. C. de 11175  
 Miranda, P. 7751, 7752  
 Miri, R. K. 6898  
 Mirić, M. 7773  
 Mirochnik, E. M. 10993  
 Mironenko, A. M. 9420  
 Mironenko, S. I. 10549  
 Mironov, E. K. 5384  
 Mironova, N. P. 2870  
 Miroschnichenko, A. I. 9507  
 Miroschnichenko, A. R. 6857  
 Miroschnichenko, I. I. 9764  
 Mirza, J. H. 7128  
 Mirzambetov, K. 9819  
 Miržinski-Stefanović, L. 3049, 3080, 3081  
 Mishra, B. 6141  
 Mishra, D. 8219  
 Mishra, H. P. 10566  
 Mishra, K. A. 700  
 Mishra, M. N. 5708  
 Mishra, R. K. 1776, 10398  
 Mishra, R. S. 4401  
 Mishra, S. D. 7795  
 Mishra, S. N. 5965  
 Mishra, S. P. 4157, 7133, 8877, 9643  
 Mišić, P. D. 10910  
 Mišiková, M. 1815  
 Misra, A. P. 8705  
 Misra, D. P. 9828  
 Misra, R. N. 359  
 Misra, S. P. 9922  
 Misselwitz, G. 8852  
 Mištinová, A. 2231, 3263, 3281, 3284, 5229  
 Mistrik, I. 1969  
 Mistry, S. K. 7402  
 Mital, R. K. 4340  
 Mital, S. P. 7309, 7525, 11109  
 Mital, V. P. 4181  
 Mitchell, W. J. P. 1734, 2874, 3091  
 Mitchell, E. D., Jr. 1349  
 Mitchell, H. L. 3057  
 Mitchell, W. W. 5165, 5201, 5202  
 Mitev, S. 1965  
 Mithyantha, M. S. 2063  
 Mitra, D. 361  
 Mitra, G. C. 4696  
 Mitra, R. K. 1716  
 Mitrofanov, N. G. 4903  
 Mitrofanova, N. V. 10647  
 Mitrofanova, O. P. 7942  
 Mitsui, Y. 4820  
 Mitton, J. B. 4596, 5724, 9190, 10032  
 Mittra, B. N. 5109  
 Mityurova, T. F. 459  
 Miura, T. 6707  
 Mixon, A. C. 6459, 7519  
 Mizuno, K. 6150  
 Mizuno, T. 6389  
 Mizushima, T. 4737  
 Mizutani, F. 9952  
 Mķervai, V. G. 10219  
 Mkrtchian, A. T. 1165  
 Mkrtchyan, A. T. 1165  
 Młodzianowski, F. 6087  
 Mlyniec, W. 3462  
 Moafizad, M. 2104  
 Mobayan, R. G. 6518  
 Mochalov, S. A. 816  
 Mochizuki, H. 6672, 6673  
 Mochizuki, T. 6468  
 Mochtar, T. 9977  
 Mock, J. J. 280, 2000, 4062, 8014, 10476  
 Modic, D. 3539  
 Modlibowska, I. 7589  
 Modoran, I. 9783  
 Mogami, Y. 5129  
 Mogford, D. J. 846, 9551, 10453  
 Moghal, S. M. 7127  
 Mogileva, G. A. 1790  
 Mogileva, V. I. 7976  
 Mogle, T. R. 6118, 8876  
 Mögling, R. 2965, 4896  
 Mohamad Idris Zainal-Abidin 2109  
 Mohamed A. E. Faris 8148  
 Mohamed A. El-Kady 938  
 Mohamed Abd-el-Sattar El-Meleigi 317  
 Mohamed Abdel-Sattar El-Meleigi 317  
 Mohamed Ahmed Bait-Almal 4143  
 Mohamed El-Sherbeeney 4664  
 Mohamed F. Abd-Alla 3631  
 Mohamed, H. A. 6698  
 Mohamed Idris Hj. Zainal Abidin 2109, 8829  
 Mohamed, M. A. 2302  
 Mohamed M. Kamel El-Tuhami 2093  
 Mohamed, S. E. F. F. 2652  
 Mohamed, S. F. 2652  
 Mohammad, A. 9080  
 Mohammad Afzal 6135  
 Mohammad Athar 8038  
 Mohammad Idris 2733, 6774  
 Mohammad Ramzan 5825, 8998  
 Mohammad Reza Khajehpour 7951  
 Mohammad Saleem 5978, 6888  
 Mohammad Shaffi Qari 6888  
 Mohammad Yunus 7728  
 Mohammed Akmal Khan 1090  
 Mohammed Marrakchi 7492  
 Mohammed Shah Ali 1348  
 Mohammed Zam, A. H. B. 9737  
 Mohammed Zuber 9707  
 Mohan Ram, H. Y. 1355, 1408, 4762  
 Mohan, S. T. 1125, 9292  
 Mohanty, D. C. 659  
 Mohanty, H. K. 5131  
 Mohd. Idris Zain-al-Abidin 2109  
 Mohd. Idris Zainal Abidin 2109  
 Mohinder Singh 8761, 10716  
 Mohn, C. A. 804  
 Mohrdiek, O. 7629  
 Moisa, I. I. 4022, 7943  
 Moiscuc, A. 5834, 5846, 5858, 5859, 5863, 5894, 5986, 6004, 6005, 6046  
 Moitra, P. K. 3779  
 Mojov, A. I. 9214, 9905  
 Mok, D. W. S. 4684, 6713  
 Mok, M. C. 4684, 6713  
 Mokhov, A. I. 9214, 9905  
 Mokhtar Trifi 7492  
 Mol, C. 839  
 Molchan, I. M. 48  
 Molchanov, V. L. 9156  
 Molchanova, Z. V. 1064  
 Molhova, E. 9090  
 Molin, W. T. 7275, 7276  
 Molina-Cano, J. L. 8122  
 Molina, M. del C. 243, 244, 9597  
 Moliver, M. G. 4569  
 Molkhova, E. 9090  
 Moll, R. H. 1989, 5981, 7331, 8283  
 Møller, B. L. 2044, 7091  
 Møller, W. J. 4520  
 Molnar, S. J. 6040  
 Molodykh, L. V. 5870  
 Molot, P. M. 9094, 9909  
 Molotkov, D. I. 1841, 10302  
 Momose, Y. 7649  
 Mónaco, L. C. 4449, 10801, 10804  
 Monastra, F. 6477  
 Mondardo, E. 3407  
 Monéger, R. 8699  
 Monet, R. 1434, 3564  
 Monico, P.-Y. 7538  
 Monma, S. 9275  
 Monnet, R. 503  
 Monotti, M. 1740, 1972  
 Monson, W. G. 6201, 9633, 10559  
 Montagu, M. van 1620, 2777  
 Montague, E. P. 11140  
 Montalvo, D. 5943  
 Montero R., R. A. 942  
 Montgomery, M. 4446  
 Montgomery, M. J. 2079



- Monti, L. M. 939, 940, 6782  
 Montoya, J. L. 11132  
 Montoya Oliver, J. M. 4298  
 Monzonte, M. 2062  
 Moody, M. 2776  
 Moomaw, R. S. 3751  
 Moon, H. G. 241, 242, 1121, 3029  
 Moore, D. M. 9363  
 Moore, G. A. 6405  
 Moore, G. D. 3255  
 Moore, J. C. 7619  
 Moore, J. N. 759, 3561, 9994  
 Moore, K. 6936  
 Moore, K. C. 2229  
 Moore, M. B. 4925, 4926  
 Moore, P. H. 7417, 9023  
 Moore, W. S. 8658  
 Mor, B. R. 9003  
 Morales, A. 7180  
 Morales Valverde, R. 5716  
 Moran, G. F. 800  
 Moraru, K. V. 139, 183, 3820  
 More, B. B. 6747  
 More, D. A. 10357  
 More, D. C. 9019  
 More, T. A. 11008  
 More, W. D. 1193  
 Moreau, J. P. 8297  
 Moreira, A. 3333  
 Moreira, J. C. S. 7878  
 Morel, D. A. 8896  
 Morelock, T. E. 8584  
 Moreno, M.-T. 2666, 3730, 6687  
 Moreno Rivera, M. A. 5458, 7604  
 Morey, D. K. 10360  
 Morey, P. R. 5296  
 Morgan, G. 6227  
 Morgan, H. 2079  
 Morgan, J. 10589  
 Morgan, J. M. 151  
 Morgan, P. W. 2086, 2087, 7136  
 Morgan, R. G. 7518  
 Morgan, W. G. 9734  
 Morgenstern, E. K. 7645  
 Morgenstern, K. 7997  
 Morgner, F. 2240  
 Morgun, V. V. 10245  
 Mori, K. 8172, 9691  
 Mori, S. 6150, 6759  
 Mori, T. 7771  
 Morice, J. 4464  
 Morikyan, E. S. 710  
 Morini, S. 683  
 Morishima, H. 2840, 2842, 2843, 7193, 7205  
 Morishita, M. 758  
 Moritz, D. 5976  
 Moriya, I. 1149, 8091  
 Morley, S. J. 8266  
 Morot-Gaudry, J. F. 4058  
 Morozik, M. S. 10396  
 Morozov, A. A. 3017  
 Morozov, E. I. 10396  
 Morozov, N. A. 1082  
 Morozov, V. A. 8475  
 Morozova, A. G. 6102  
 Morozova, E. V. 9784  
 Morozova, T. V. 2495  
 Morozova, Z. N. 1082  
 Morris, C. G. 8796, 10132  
 Morris, J. D. 8477  
 Morris, J. R. 3603  
 Morris, R. 10307  
 Morris, R. W. 9192  
 Morris, S. C. 2282  
 Morrison, K. J. 8833  
 Morrison, R. D. 5803  
 Morrow, L. S. 8278  
 Mortensen, J. A. 6555  
 Morton, B. C. 72  
 Morton, C. S. 8376  
 Morton, J. B. 5917, 5918, 5919, 10373  
 Moruju, G. 1436, 3516  
 Moseley, G. 941  
 Mosely, P. R. 4076  
 Moseman, J. G. 1156, 1157, 1830, 6109  
 Moser, L. 6477  
 Moshchuk, P. A. 8252  
 Moskaleva, G. I. 3116  
 Mosnaim S., S. R. 5550  
 Mošnová, M. 2222  
 Mosquera Paris, F. 5265  
 Moss, B. R. 1163  
 Moss, J. P. 5855, 7512  
 Mostafa, M. 11054  
 Mostafa, S. A. S. 6420  
 Mostert, J. F. T. 1918  
 Mostovskaya, N. S. 7100  
 Mote, S. B. 2748, 2749  
 Motes, D. 10997  
 Motomura, H. 5118  
 Motto, M. 1944, 1950, 6022, 6709  
 Mouhtanov, I. I. 9564  
 Moulton, J. E. 2526, 4553  
 Mounla, M. A. K. 1708  
 Mouradyan, A. A. 2902  
 Mouret, J. C. 3471  
 Mourichon, X. 8394  
 Mourikis, P. A. 6632  
 Mousayelian, M. S. 3882  
 Moussa Adamou 4119  
 Moustafa, S. 7576  
 Moustafa, S. E. 9283  
 Moutray, J. B. 3255  
 Movchan, G. I. 168  
 Movillon, M. M. 8630  
 Mozer, R. R. 3302  
 Mozgova, E. A. 6052  
 Mozgovoi, A. F. 2967, 2974  
 Mozhaeva, V. S. 177, 178  
 Mozingo, R. W. 7514  
 Mpabanzi, A. 8797  
 Mrázek, O. 1264  
 Mrázková, V. 2224, 3258  
 Mroginski, L. A. 5393  
 Mu, H. C. 2475  
 Mu, S. K. 9105  
 Mu, X. J. 2475  
 Mucha, S. 5976  
 Muchová, Z. 2948  
 Mudd, E. E. 4876  
 Muddappa Gowda, P. 9773  
 Mudich, A. 4895  
 Mudrik, N. V. 4727  
 Mudrova, N. L. 232  
 Muehmer, J. K. 4603  
 Mueller, E. H. 5699  
 Mufradi, B. 8718  
 Mugwira, L. M. 1890, 7869, 10250  
 Muhammad Abdul Hamid 9758  
 Muhammad Afzal 6135  
 Muhammad Anwar Mirza 7371  
 Muhammad Aslam 8997  
 Muhammad Aslam Khanzada 6440  
 Muhammad Iqbal 7728  
 Muhammad Ramzan 5825, 8998  
 Muhammad Saleem 7386  
 Muhammad Yousaf 5978  
 Muigai, S. G. S. 7743, 7744  
 Muir, C. E. 8833  
 Muir, P. S. 7766  
 Mujeeb-Kazi, A. 10244  
 Mujica, F. L. 3867  
 Mukadam, D. S. 10016  
 Mukerjee, P. K. 7559  
 Mukhaev, B. A. 6580  
 Mukhamedkhanov, S. R. 7372  
 Mukhammedov, D. M. 10518  
 Mukherjee, B. K. 9519, 10423  
 Mukherjee, K. K. 5636  
 Mukherjee, P. 9655, 9697  
 Mukherjee, P. K. 7559  
 Mukherjee, R. 2415, 2416  
 Mukherjee, S. G. 7670  
 Mukherjee, S. K. 10893  
 Mukherji, D. K. 5096, 5110  
 Mukhina, N. A. 9754  
 Mukhitdinov, A. 6351  
 Mukhopadhyay, S. 9713  
 Mukhortova, T. G. 2447  
 Mukhsinov, V. Kh. 4751, 5704  
 Mukhtanov, I. I. 9564  
 Mukunya, D. M. 10112  
 Mulcahy, D. L. 4631, 7050, 7703  
 Mulcahy, G. B. 4631  
 Mulchi, C. L. 3447, 7433  
 Muldoon, D. K. 4109  
 Muleba, N. 277  
 Mulkey, J. R. 8795  
 Mulkey, W. A. 7692  
 Mullaney, E. J. 10368  
 Mullen, M. A. 4366, 5276  
 Müller, A. J. 10779  
 Müller, H. W. 1913, 4935, 8790  
 Müller, J. J. V. 11021  
 Müller, L. 6712  
 Müller, M. 10432  
 Mullin, W. J. 1534, 5246, 6281  
 Mullinix, B. G. 7175, 8709  
 Mullins, C. A. 2627, 3518, 9155, 9987  
 Mullins, M. G. 8441  
 Mumubila, M. 3858  
 Mun, H. H. 3176  
 Munasov, Kh. 7392  
 Munck, L. 6872  
 Munde, P. N. 9082  
 Mundo, A. M. del 8187  
 Munger, H. M. 11030  
 Munir A. Bhatti 6438  
 Munir-ud-Din Khan 7376, 7386  
 Munk, A. 10239, 10240, 10241  
 Munk, L. 8871  
 Munns, R. 68  
 Munoz, F. J. 7320, 10686  
 Munro, I. K. 1299  
 Munroe, K. A. 6638  
 Munson, S. 5425  
 Munsterhjelm, L. 8682  
 Müntzing, A. 1874, 7851  
 Münzer, W. 5781  
 Munzert, M. 505, 1317  
 Muppithadi, N. 6195  
 Mur, G. 8452  
 Muradyan, A. A. 2902  
 Murai, T. 9851  
 Murakami, K. 10361  
 Murakami, M. 2177, 6150, 6759  
 Muralidharan, K. 8917  
 Muralimohanreddy, B. 10564  
 Murata, K. 6741  
 Murata, M. 5645, 8102  
 Murata, Y. 1220  
 Muraya, L. S. 1510  
 Murchison, C. 7244  
 Muresan, S. 8975, 9783  
 Mureşan, T. 5658  
 Murfet, I. C. 62  
 Muriel Fernández, J. L. 9071  
 Murillo Carpio, J. M. 10624  
 Murphy, C. F. 4927, 5922, 10405  
 Murphy, H. J. 8278, 10684  
 Murphy, R. P. 3256, 7285  
 Murphy, T. M. 9195  
 Murray, B. E. 8311, 9012, 9013  
 Murray, B. G. 4273  
 Murray, G. A. 983, 6788, 8621, 8623  
 Murray, M. J. 4768  
 Murray, T. D. 6977  
 Murry, L. E. 5199  
 Murthi Anishetty, N. 8569  
 Murthy, B. N. 2051, 9616  
 Murthy, G. S. S. 8366  
 Murthy, K. N. 9086  
 Murthy, K. S. 1747  
 Murty, B. R. 3843, 3922, 4128, 5041, 9053, 9608, 9642  
 Murty, D. S. 2095  
 Murty, G. S. S. 4469, 8366, 10816  
 Murty, K. N. 4156, 4165, 4170, 7160, 8152  
 Murty, K. S. 369, 2129, 2132, 2140, 4215, 5132, 9687  
 Murty, P. S. S. 2129  
 Murty, T. G. K. 10561  
 Murty, U. R. 2091, 3147  
 Murty, V. V. S. 6148  
 Muruli, B. I. 10112  
 Musaelian, M. S. 3882  
 Musaelyan, M. S. 3882  
 Musaev, D. A. 526, 3338  
 Musaeva, S. 3338  
 Musahib-ud-Din Khan 6522  
 Musalem, M. A. 798  
 Musche, B. 7862  
 Musen, H. L. 6751  
 Mushaq Ahmad 6135  
 Musich, V. N. 6974  
 Musil, M. 3278, 5643  
 Mussell, H. W. 1687  
 Mustafa, M. 11054  
 Mustafaev, A. S. 9138  
 Mustafaev, I. D. 180, 186, 1780, 9453  
 Mustafaev, I. L. 2991  
 Mustafaev, S. A. 545, 3354  
 Mustakimova, F. G. 6349  
 Mustaq Ahmed, N. M. 5134  
 Mustárdy, L. A. 6054  
 Muszyński, S. 2723, 4718, 8003, 8789, 11138, 11139  
 Mutapović, A. 2491, 5442  
 Muthukrishnan, C. R. 2322, 2329, 5614, 11045  
 Muthuswami, S. 8573, 10057  
 Mutschler, M. A. 11100, 11101  
 Mutton, L. L. 7680  
 Muzilli, D. 3864  
 Myalik, M. G. 3534  
 Myasina, V. P. 5685  
 Myers, O., Jr. 11159  
 Myhr, K. 1243, 7266  
 Myszkla, T. 1440  
 Nabhan, G. P. 5651  
 Nabil A. M. Saleh 3631  
 Nabeiev, A. G. 9817  
 Nabiullin, B. A. 3914, 3919  
 Nabokikh, K. I. 7418, 7426, 10762  
 Nachnani, G. H. 1346  
 Nadagoudar 10593  
 Nadirov, B. T. 3906  
 Nadkarni, R. S. 8320  
 Naether, J. 82, 5804  
 Nagai, C. 3039, 9542  
 Nagai, V. 10746  
 Nagaich, B. B. 8703  
 Nagamani, A. 1572  
 Nagao, T. 10790  
 Nagaraja Rao, M. 8152  
 Nagarajah, S. 10799  
 Nagarajan, K. 1385, 5068, 7467  
 Nagarajan, S. 1837, 1843, 3976, 4914  
 Nagata, T. 9853  
 Nagatomi, S. 9371  
 Nagatomo, T. 8926  
 Nagendra Prasad, P. 4497  
 Nagibin, A. E. 452, 10519  
 Nagl, K. 2681  
 Nagl, W. 5742  
 Nagle, E. F. 4090  
 Nagpal, K. C. 1843  
 Nagy, F. 8331  
 Nagy, G. 4895  
 Nagy, S. 3566  
 Nagylaki, T. 9, 2776, 3810  
 Nahapetian, A. 1081  
 Nahar, M. A. 3195  
 Nahas, A. 1008  
 Nahavandi, E. 9065  
 Naidanova, G. M. 7363  
 Naidanova, I. N. 9168  
 Naidanova, M. T. 5490  
 Naidu, B. S. 2119, 2120, 5120, 8900, 10593, 10596  
 Naidu, R. 1461  
 Naidu, S. S. 2159  
 Naik, L. B. 339, 340  
 Naik, M. S. 1233  
 Nair, M. K. 9086  
 Nair, M. S. 9527  
 Nair, N. R. 6193, 6194  
 Nair, P. G. K. 6761  
 Nair, P. S. 6761  
 Nair, P. V. 6180  
 Nair, R. V. 6761, 9527



- Nair, V. G. 2142, 2445, 4493, 6149, 6464  
 Nair, V. K. B. 3494  
 Nair, Y. R. 6736  
 Najib Lotfy 2459  
 Nakabayashi, H. 2822  
 Nakagawa, S. 10935  
 Nakai, H. 7185  
 Nakai, Y. 185, 7975  
 Nakajima, J. 6383  
 Nakajima, T. 8418  
 Nakamura, C. 6381, 7420, 7421, 8340, 9028  
 Nakamura, S. 424  
 Nakane, A. 2115, 6153, 7190  
 Nakanishi, H. 6150, 6759  
 Nakanishi, T. 2283, 5484  
 Nakano, M. 6707  
 Nakashima, H. 6389, 6391  
 Nakata, K. 10790  
 Nakatani, M. 5451, 9128, 9132  
 Nakatogawa, H. 10776  
 Nakatsukasa, Y. 10106  
 Nakhtore, C. L. 2755  
 Nakui, T. 8051  
 Nalawadi, U. G. 1551  
 Nałęczńska, A. 7247  
 Nalepa, S. 1061, 4922, 7891  
 Naletova, O. D. 714, 7566, 8413  
 Nalewaja, J. D. 2983  
 Nalini, M. S. 7512  
 Nalobava, V. L. 11033  
 Nalobova, V. L. 11033  
 Nam, H. W. 4538  
 Nam, Y. I. 2853  
 Namai, H. 852, 856, 10361  
 Namayunas, B. P. 7081  
 Nambiar, M. C. 3621, 3622  
 Nambiar, P. K. N. 2516  
 Nambiar, P. K. V. 2449  
 Nambiar, P. T. C. 8375  
 Nambodiri, K. M. N. 2517  
 Namkoong, G. 4801, 6827, 9173  
 Nancarrow, R. J. 7746  
 Nanda, A. K. 359  
 Nanda, G. S. 1809, 6896, 6940, 8766, 9442  
 Nanda, J. S. 1211, 1217, 2153, 3161, 6160, 7219  
 Nandan, R. 9335  
 Nandi, B. 2162  
 Nandpuri, K. S. 524, 4627  
 Nandwana, R. P. 951  
 Nangju, D. 3740, 5638, 10146  
 Nanjan, K. 8573, 10057  
 Nano, N. E. 8153  
 Napierkovskaya, G. M. 924  
 Naqi, S. A. 5291  
 Naqvi, H. H. 5409  
 Naqvi, S. M. A. 8380  
 Narain, A. 3455, 3663  
 Narang, S. 2730  
 Naranjo, T. 7981  
 Narasimha Raju, D. N. 9907  
 Narasimha Rao, N. 926  
 Narasimha Reddy 2120  
 Narasimham, B. 2532  
 Narayan, R. K. J. 5722, 9393  
 Narayan Reddy, C. 330  
 Narayana 6345  
 Narayana, D. S. 5150  
 Narayana Rao, I. 7015  
 Narayana Reddy, P. 718  
 Narayana Swamy, S. 8900  
 Narayana, Y. D. 7723, 7724, 9025, 9839  
 Narayanan, A. I. 610  
 Narayanan Nambiar, P. K. 2516  
 Narayanaswamy, S. 7528  
 Narbut, S. I. 843, 845, 1524  
 Nardi, S. 1816, 2946  
 Narendra Kulkarni 4156, 4165, 4170  
 Narendra Singh 872  
 Naresh Mehrotra 929, 1576, 10680  
 Narikawa, T. 6707, 6741  
 Narisawa, N. 9129  
 Narkhede, B. N. 8650, 11191  
 Narkhede, M. N. 1957  
 Narsinghani, V. G. 2744, 3779, 10178  
 Naseem Saeed 1375  
 Našinec, J. 1669, 3285, 4249  
 Nasiruddin, M. 3159, 7179, 8179  
 Naskidashvili, P. P. 1824  
 Nasr, H. G. 4862  
 Nasrallah, M. E. 1537  
 Nasrullah Chatha 6438  
 Nass, H. G. 105, 106, 5876, 5881, 7993  
 Nassal', K. N. 1961, 7782, 11177  
 Nassar, N. M. A. 3402, 4421, 5334  
 Nassi, M. O. 3623  
 NasYROV, Yu. S. 63  
 Nasyrova, D. 9822  
 Natali, A. H. 6075  
 Natarajan, S. 11102  
 Natarajan, S. T. 2440, 10831  
 Nath, P. 2594  
 Nath, R. 1294  
 Nath, S. B. 9480  
 Nathawat, K. S. 1829  
 Naudet, M. 9894  
 Nault, L. R. 2013, 4074  
 Naumov, A. A. 2942  
 Navasardian, E. M. 1557  
 Navasardyan, E. M. 1557  
 Navolotskii, A. V. 6899  
 Navolotskii, V. D. 307  
 Navratil, R. J. 4060  
 Navrotskaya, A. A. 777, 778  
 Nawar, A. A. 6002, 6003  
 Nawracala, J. 1591  
 Nayak, B. K. 10566  
 Nayak, S. K. 2129  
 Nayar, K. M. D. 328, 1777, 2074, 2452, 2599  
 Nayar, N. K. 2123, 2533, 3605  
 Nayar, N. M. 9086  
 Nayar, S. K. 8707, 8762, 8765, 8769  
 Nayeem, K. A. 2084, 2747, 4760, 7141, 8881  
 Naylor, J. M. 1900  
 Nazarenko, B. P. 1304, 1323  
 Nazarenko, L. G. 3483  
 Nazarov, R. S. 2297  
 Nazarova, E. A. 931  
 Nazarova, O. 10717  
 Nazarova, V. M. 4632  
 Nazeer, M. A. 2330  
 Nazir Ahmad 8993  
 Nazir Ahmed Choudhry 1345  
 Nazirov, N. N. 550, 9817  
 Nazm-ul-Haq 4764, 8634  
 Nazmul Haq 4764, 8634  
 N'Ciri, A. 568  
 Ndon, B. A. 2862  
 Neagu, M. 5834  
 Neal-Smith, C. A. 3212, 3213  
 Nebreda, I. M. 7910  
 Nechiporchuk, I. D. 4356, 9771  
 Neczypor, W. 9918, 10846  
 Nedashkov'ska, L. A. 4414  
 Nedashkovskaya, L. A. 4414  
 Nedbálková, B. 1263  
 Nedelcheva, S. 6406  
 Nedelea, G. 5834, 5846, 5894, 5895, 5896, 5897, 5986, 6004, 6005, 6046  
 Nedić, M. 3063, 4059  
 Nedoma, J. 7239  
 Neel, W. W. 9171  
 Neelakantan Potti, N. 9032  
 Neelakantan Potty, N. 2450, 2462, 9032  
 Neelam Singh 10133  
 Neely, H. A. 3681, 5591, 6621, 6622  
 Nefedova, L. G. 5552  
 Negishi, S. 8832  
 Negm, A. A. 2338  
 Negulescu, F. 5797, 5928  
 Neguți, I. 9783  
 Nehls, R. 4789, 5752  
 Neidhart, E. 1452  
 Neilson, R. P. 4579  
 Neitzel, K. 6339  
 Nekhorosheva, A. 538  
 Nekrasov, S. D. 3617  
 Nel, P. C. 3055  
 Nel, P. M. 4015  
 Nell, T. A. 7058  
 Nelson, B. V. 10086  
 Nelson, C. J. 5174, 5194  
 Nelson, D. C. 6312, 7315  
 Nelson, J. L. 2026  
 Nelson, J. W. 5441  
 Nelson, L. R. 1249, 4887, 5842  
 Nelson, O. E. 1030, 8811  
 Nelson, R. R. 4069, 4829, 4898, 6058, 6190, 8062, 10377, 10617  
 Nelson, S. W. 1078  
 Nelson, W. 10318  
 Nema, A. G. 2073  
 Németh, J. 1136  
 Nemeth, O. F. 3943  
 Nemilostivaya, T. I. 4474, 4783  
 Nene, Y. L. 956, 2752, 3792, 3793, 3795, 7801, 11074, 11075  
 Nepveu, G. 7644, 10039  
 Nerkar, Y. S. 2084, 2325, 2748, 2749, 4140, 8318  
 Nerlekar, V. D. 5400  
 Nersesian, R. M. 3424  
 Nersesyan, P. M. 3424  
 Neshina, L. P. 2085  
 Nešković, M. 802  
 Nessler, C. L. 607  
 Nesterov, A. N. 1724  
 Nesterov, A. Yu. 9559  
 Nesterov, Ja. S. 7531  
 Nesterov, V. S. 4806  
 Nesterov, Ya. S. 6485, 7531, 10863  
 Nesterova, T. V. 3819  
 Neštický, M. 1127, 8036  
 Netherlands, Commissie voor de Samenstelling van de Rassenlijst voor Landbouwgewassen 5775  
 Neto, A. M. 3415  
 Nettevich, E. D. 2868, 2942, 2947, 3099  
 Netzbund, K. 4262, 8238  
 Netzer, D. 4629  
 Neubert, K. 5151  
 Neucere, N. J. 3152, 5079  
 Neuffer, M. G. 4032, 4033, 6007, 6008, 6010, 6037, 7067, 7068, 10450  
 Neumann, D. 1986  
 Neumann, H. 7016  
 Neumann, K.-H. 5407, 6599  
 Neumann, M. 82, 217, 3883, 3982, 5804, 5946, 7485, 8775  
 Neustroeva, L. M. 3801  
 Nevill, D. J. 3480  
 Nevinskykh, V. A. 5315  
 Nevo, E. 8076  
 New, S. 763  
 Newaz, M. A. 2677, 7734  
 Newell, C. A. 4719, 8601  
 Newman, C. W. 10547  
 Newman, M. 2717  
 Newman, W. C. 1163  
 Newsom, D. W. 711, 5507, 6511  
 Newton, H. C., Jr. 5840, 7883  
 Newton, K. 1974, 8804  
 Newton, K. J. 3038, 4954, 4962, 4963, 4964, 5991, 6027, 7033, 9533  
 Newville, E. G. 4597  
 Ng, E. 9681  
 Ng, F. S. P. 2560  
 Ng, T. J. 10924  
 Ngambi, J.-M. 8874  
 Nguyen, H. T. 2987, 3225, 6225  
 Nguyen Van, É. 5065, 5066  
 Ni, D. X. 3475  
 Ni, T. H. 3475  
 Niaz Ali 6522  
 Niaz Muhammad 5826, 5827  
 Nicholas, D. A. 9756  
 Nicholls, J. W. P. 8477  
 Nichols, L. P. 4513  
 Nichols, S. L. 7275  
 Nicholson, R. L. 6057  
 Nickell, C. D. 1582, 4744, 6763  
 Nicolae, C. 6906  
 Nicolae, F. 1624  
 Nicolae, H. 6906, 6968  
 Nicolae, I. 959, 965, 969, 1624  
 Nicolescu, M. 5987  
 Nicoloff, H. 8103, 9603, 10198, 10229, 10539  
 Nicora, E. 5048  
 Nicotra, A. 6477, 6502  
 Nie, X. W. 3015  
 Niederle, J. 2213  
 Nieh, H. W. 3015  
 Nielsen, H. M. 445  
 Nielsen, L. W. 7338  
 Nielsen, N. E. 8828  
 Niemann, E.-G. 1039  
 Niemann, G. J. 6594  
 Niemeier, H. M. 6987  
 Niemeier, U. 4877  
 Niemirowicz-Szczyt, K. 23  
 Niemyski, K. 6206  
 Nienhuis, J. 7686, 11022  
 Niezborala, E. 1446  
 Nigam, R. K. 6365  
 Nigam, S. N. 8375  
 Nigeria, International Institute of Tropical Agriculture 1630  
 Niizeki, M. 8342, 10595  
 Nijs, A. P. M. den 882, 884, 2628, 3700, 6642, 6644, 8533, 8534, 11027, 11028, 11036, 11037  
 Nijs, T. P. M. den 4337  
 Nikiforov, O. A. 10333, 10334  
 Nikiforov, V. S. 297  
 Nikiforova, E. L. 10353  
 Nikiforova, I. L. 1148  
 Nikiforova, N. F. 9425, 9474  
 Nikitenko, G. F. 8072  
 Nikitin, Yu. P. 8256  
 Nikolaenko, V. P. 4242  
 Nikolaesku, E. Ya. 714, 8410  
 Nikolaev, A. G. 7802, 11195  
 Nikolaeva, E. K. 7940  
 Nikolaeva, M. G. 10877  
 Nikolaevskaya, L. D. 2264  
 Nikolaevskaya, T. S. 10639, 10640, 10641  
 Nikolaevskii, V. G. 2264  
 Nikolaenko, M. P. 3156, 10257, 10400  
 Nikolić, M. 5442  
 Nikolić, T. 9112  
 Nikolov, H. 6404  
 Nikolov, Kh. 6404, 8103, 9603, 10198, 10229, 10539  
 Nikolova, N. S. 1788  
 Nikol'skii, B. V. 7585, 10852, 10915  
 Nikol'skii, Yu. K. 155  
 Nikova, V. M. 1380  
 Nikulicheva, F. A. 6973  
 Nikulin, A. V. 9029  
 Nikulina, N. D. 322, 7119  
 Nikuradze, V. G. 2513  
 Nilan, R. A. 2031, 5030, 5124, 8097, 8120, 8833, 8842, 9381  
 Niles, G. A. 1352, 4385, 5279, 5291  
 Nilsson, A. 4586  
 Nilsson, K. 5414, 5418  
 Nilsson, T. 825  
 Nilufar F. S. Khan 7399, 8317  
 Nimchenko, P. V. 5315  
 Nimmo, C. C. 4825  
 Ninan, C. A. 2123, 2515  
 Nipoti, P. 8433  
 Niranjana, K. P. 9640  
 Nirmal, D. D. 2734  
 Nirmala Maheshwari 1611  
 Nirwan, R. P. S. 10894, 10940  
 Nirwan, R. S. 10940  
 Nishchii, I. A. 10527  
 Nishida, K. 374



- Nishiiri, K. 8607  
 Nishikawa, K. 6965  
 Nishikawa, S. 4101  
 Nishio, T. 858, 2609, 6616  
 Nishita, K. D. 2149  
 Nishiura, M. 5455  
 Nishiyama, H. 5118  
 Nishiyama, I. 2892, 7971, 10613  
 Nissly, C. R. 9314  
 Nitranský, Š. 10878  
 Nitsch, C. 5498, 6037, 9357  
 Nitschke, L. F. 9321  
 Nitss, V. 10205  
 Nittler, L. W. 10642  
 Nitzsche, W. 1247, 4601, 10205  
 Niu, D. S. 4043  
 Niu, M. C. 2136  
 Niu, M. J. 2136  
 Niu, T. S. 4043  
 Nivolov, Kh. 8103  
 Niyazova, G. M. 7908  
 Nizam, J. 1295, 1348, 5402  
 Njagi, G. D. E. 1628  
 Njuguna, C. K. 2384  
 Noba, K. 8563  
 Noble, A. C. 5500  
 Noda, N. 7464  
 Noel, G. R. 3771  
 Nohejl, J. 2281  
 Noiret, J. M. 8371  
 Nolan, R. C. 7934  
 Noling, J. W. 8289  
 Nolte, P. 202  
 Nomulwar, M. T. 2710  
 Nomura, K. 8595, 9708  
 Nonaka, S. 4839, 4840, 4841, 8832  
 Nong Tkhi Man 966  
 Noor-Mohammadi, G. 5388  
 Noorsjamsi, H. 5099  
 Nordby, H. E. 5487  
 Norden, A. J. 7519  
 Nordgaard, J. T. 1870  
 Nordquist, P. G. 5087  
 Norelius, G. 2654  
 Norelli, J. L. 4517  
 Norlyn, J. D. 5791, 6875  
 Norman, M. J. T. 6811, 7759  
 Normanha, E. S. 579  
 Normann, R. 6913  
 Normov, A. A. 1991  
 Norris, I. B. 2195  
 Norris, K. H. 1094  
 North, M. 10856  
 Norton, J. D. 5607, 7619, 8400  
 Norwood, J. M. 1546, 3690, 6627  
 Notteghem, J. L. 1139, 10616  
 Nourse, H. C. 9321  
 Novák, A. 3592  
 Novák, F. J. 1127, 4607, 5562, 5805, 7097, 8036  
 Novák, J. 2272, 9879  
 Novak, J. R. 869  
 Novaro Manmana, P. 2873  
 Novokhatin, V. V. 8747  
 Novoselov, A. K. 9781  
 Novoselova, A. S. 10649  
 Novozhilov, O. V. 6930  
 Novruzov, E. N. 10001  
 Nowacki, E. 1289, 5811, 7273  
 Nowick, E. 4956  
 Noworolnik, K. 7990  
 Noyes, R. D. 6453  
 Nozue, M. 1321, 2823, 6330  
 Nsawah, G. F. 11152  
 Nuamah, G. E. A. 889  
 Nucé de Lamothe, M. de 7571, 7574  
 Nüesch, B. 5152  
 Nugent, P. E. 5604, 11006  
 Nuland, D. S. 5652  
 Numerova, O. M. 10533  
 Nurbaev, O. N. 8221  
 Nurbekov, S. I. 150  
 Nurgasenov, T. 163  
 Nürnberg, U. 8786  
 Nurtazin, M. T. 5443  
 Nuthan, D. 5379  
 Nutsbidze, O. N. 4565  
 Nuttall, A. M. 5816  
 Nyárádi, J. 9913  
 Nyárádi-Szabady, J. 9915, 9916  
 Nyárádiné Szabady, J. 9913  
 Nybom, H. 5471  
 Nydegger, U. 10697  
 Nyutin, Yu. I. 1555  
 O, J. H. 3775  
 Oard, J. 11153  
 Oard, J. H. 4745  
 Oba, K. 6563  
 O'Barr, R. D. 5507  
 Obasola, C. O. 2431, 2432  
 Obendorf, R. L. 9587  
 Obenhaus, C. G. 8306  
 Obetzhauser, G. 8007  
 Obi, I. U. 4065  
 Obisesan, I. O. 2431  
 Obiukh, M. P. 3617  
 Obolonik, N. V. 4338  
 O'Brien, L. 1731, 2914, 10277  
 O'Brien, M. J. 10738  
 O'Brien, P. C. 8771  
 Obst, A. 10372  
 Obukhovich, E. M. 10548  
 Ocampo, J. A. 6951  
 Ocampo R., F. 5363  
 Ochoa, C. 504, 3319, 5257, 6319  
 Ochoa, C. M. 7333, 9787, 9796  
 Ockendon, D. J. 4606, 4622, 5570, 6615  
 Ocumpaugh, W. R. 2207  
 O'Dell, M. 3014, 5850  
 Odenbach, W. 2605, 3664  
 Odilov, S. 5278, 9805  
 Odoardi, M. 2053  
 Odurukwe, S. O. 3413  
 Oertel, H. 4332  
 Offutt, M. S. 3262  
 Oganyan, A. Kh. 710  
 Oganyan, E. A. 10004  
 Oganyan, S. A. 5522, 8464  
 Ogašanović, D. 7565  
 Ogawa, H. 5358  
 Ogawa, K. 1326  
 Ogawa, T. 382, 8158, 8198, 8211  
 Ogbuji, R. O. 4611  
 Ogilvie, I. S. 1374  
 Ogiwara, S. 5609  
 Ognoutková, L. 5805  
 Ogorodnikova, T. I. 4636  
 Ogunfowora, A. O. 4743  
 Ogunremi, E. A. 9063  
 Ogurtsov, K. S. 732, 9137  
 Ogurtsov, V. N. 4120  
 Oh, H. Y. 6394  
 Oh, J. H. 3775  
 Oh, S. K. 3477  
 Oh, Y. J. 3172  
 Ohashi, H. 10683  
 Ohashi, Y. 4447, 7470, 9045, 9851, 10774  
 Ohata, H. 8832  
 Ohba, K. 6563  
 Ohkawa, Y. 3304, 4457, 7667, 7668  
 Ohm, H. 4934  
 Ohm, H. W. 2923, 2988, 3010, 3979, 4902, 4934, 5822  
 Ohnishi, O. 4229, 8929  
 Ohnishi, S. 6389  
 Ohta, T. 2837  
 Ohtsuka, I. 1775, 8728  
 Ohyama, K. 8687  
 Oinuma, T. 604, 9034, 9035  
 Ojehomon, O. O. 7754  
 Ojo, D. K. 8817  
 Oka, H. 1228, 2840, 2842, 2844, 2845, 5484, 6146, 7205  
 Oka, H. I. 356, 1228, 7193  
 Oka, M. 617  
 Okada, M. 5118  
 Okali, C. 4420  
 Okamoto, K. 4820  
 Okamura, T. 9034, 9851, 9852  
 Okawa, Y. 3304, 4457, 7667, 7668  
 O'Keefe, R. B. 8287  
 O'Keefe, L. E. 983, 6788, 8621  
 O'Keefe, M. 462  
 Okhremenko, L. A. 10528  
 Okhrimenko, G. N. 177  
 Okhrimenko, L. V. 2817  
 Okimoto, R. 3050  
 Okoli, O. 5338  
 Okoli, O. O. 5333  
 Okon, Y. 4655  
 Okopnyi, N. S. 10042  
 Okovitaya, R. N. 1897  
 Oksenenko, B. K. 4614  
 Oksenenko, V. I. 4318  
 Oksuzyan, R. A. 9499  
 Oku, H. 2822, 2829  
 Oku, K. 7814, 10535  
 Okuno, K. 4024  
 Okwaro, G. A. 8141  
 Olaifa, J. I. 6740  
 Olalla Mercadé, L. 10753  
 Olariu, V. 8975  
 Olaru, T. 6906  
 Olaru, V. 6906  
 Oleinik, I. Ya. 7647  
 Oleinikova, T. V. 5909  
 Olejniczak, J. 3101  
 Olekseenko, T. D. 1454  
 Olered, R. 1681  
 Olesen, J. 3840, 3841  
 Olien, C. R. 5051  
 Olimpienko, G. S. 10639, 10640, 10641  
 Oliphant, R. D. 8131  
 Oliva V., E. 7739  
 Olivares Sáenz, E. 10225  
 Oliveira, F. A. de 6705  
 Oliveira, L. A. A. de 8015  
 Oliveira, L. M. de 5995  
 Oliveira, M. L. de 581  
 Oliveira, S. A. de 654  
 Oliveira, S. C. 10578  
 Oliver, R. H. 1747  
 Oliver, R. J. C. 6028  
 Olivier, J. M. 3513  
 Olivieri, A. M. 3457  
 Ollerenshaw, J. H. 279  
 Olmo, H. P. 8443  
 Olowe, T. 4702  
 Olsen, O. 3464  
 Olsson, G. 855  
 Olsson, K. 3322  
 Olteanu, G. 8327, 8975  
 Olthof, T. H. A. 4006  
 Olufolaji, A. O. 8568  
 Olufowote, J. O. 3170  
 Om Pal Singh Rana 1129  
 Om, Y. H. 3699  
 O'Malley, D. 9207  
 O'Malley, D. M. 10954  
 Omar, A. M. 2302  
 Omara, S. K. 8538  
 Omarov, D. S. 7090  
 Omarov, M. D. 1467  
 Omarova, E. I. 171  
 Omel'chenko, L. I. 3156, 10257, 10400  
 Omel'chenko, V. M. 532  
 Omel'chenko, V. S. 2294  
 Omel'yanovich, V. O. 4885  
 Omidiji, M. O. 1483  
 Ommersen, A. van 5058  
 Omolo, E. 4009  
 Omuetti, O. 5637  
 Omura, M. 7534  
 Omura, T. 2125, 2141, 10594, 10599  
 Ona, B. D. 9498  
 Onajole, A. A. O. 7753  
 Ondřej, M. 301, 5314, 8313, 8314  
 Onishi, O. 4229, 8929  
 Onishi, S. 6389  
 Onis'kov, N. T. 1897, 2050  
 Onis'kova, M. G. 1905  
 Onizuka, W. 9666  
 Onkar Singh 1588, 10752  
 Onkarappa, K. 10714  
 Onken, A. B. 9649  
 Ono, C. 2689  
 Ono, K. 623, 7466  
 Ono, T. 5118  
 Ono, Y. 7509  
 Onogur, E. 1102  
 Onokpise, O. U. 4307, 4308, 5237  
 Ooi, S. C. 2430, 7498  
 Ooijen, J. W. van 7744  
 Oost, E. H. 882, 2628, 6642  
 Oosten, A. A. van 2520  
 Opatrný, Z. 1127, 2265  
 Opeña, R. T. 3669  
 Openshaw, S. J. 11146  
 Opichal, M. 1263  
 Oplinger, E. S. 7008  
 Oproiu, E. 8753  
 Oram, R. N. 3279, 5236  
 Orav, I. 6084  
 Orav, T. A. 10537  
 Orazmuradov, O. 2082  
 Orcutt, D. M. 2580  
 Ordás, A. 10424  
 Orellana, J. 7999  
 Orellana Perez, P. 9703  
 Orf, J. H. 11136, 11142  
 Orlenko, E. G. 9196  
 Orlov, B. P. 790  
 Orlov, V. N. 3366  
 Orlova, L. A. 9520  
 Ormandy, A. 10481  
 Ormrod, D. P. 4492, 5160, 8633  
 Orozco-Castaño, F. J. 3448, 4450  
 Orr, P. H. 7315  
 Orrego, F. O. Y. 10130  
 Orsenigo, M. 8028  
 Ortega, A. 6067  
 Ortega, A. V. 4155  
 Ortega D., M. L. 6715  
 Ortiz, F. H. 10989  
 Ortiz, L. B. 2436  
 Ortiz Ortiz, J. 4473  
 Ortiz, R. 7410  
 Orton, T. J. 2026, 6089, 9605  
 Orzhekhovskaya, T. E. 3722  
 Orzolek, M. D. 8278  
 Osada K., S. 5321  
 Osadchiĭ, A. S. 578  
 Oshevnev, V. P. 576  
 Osińska, B. 3394  
 Osińska, B. 3206  
 Osipchuk, A. A. 3310, 3312  
 Osipov, A. V. 10224  
 Osipova, E. A. 7345  
 Osipova, G. M. 3219, 10630, 10631  
 Osipova, L. V. 2487  
 Osipova, Z. F. 3591  
 Oslage, H.-J. 4998  
 Oslund, C. R. 10107  
 Osman, S. F. 7359, 7360  
 Osoro, M. O. 4411  
 Ostafichuk, L. 8254  
 Ostapenko, B. F. 790  
 Ostapenko, T. F. 4717  
 Ostapenko, V. I. 10873  
 Ostazeski, S. A. 2227, 5208, 10666  
 Østerbye, U. 8225  
 Osterman, J. C. 1953, 10440  
 Østgård, O. 4248  
 Ostrovskaya, L. K. 547  
 Ostrowska, A. 7231  
 Ostrowska, K. 5268  
 Oswald, E. S. 2286, 8302  
 Oswin, P. M. 6660  
 Ota, K. 10776  
 Ota, T. 2837  
 Otegbeye, G. O. 8469  
 Otokoza, R. 7427  
 O'Toole, J. C. 3164, 10614  
 Otoul, E. 4708, 8582  
 Otsuka, I. 1775, 8728  
 Ottaro, W. G. M. 2461  
 Ottaviano, E. 4966, 7050, 8042  
 Ou, H. H. 9099  
 Ou, S. H. 2170, 4223, 6188  
 Ouchi, S. 2822, 2829  
 Ougouag, B. 1624  
 Ourecky, D. K. 3588  
 Outka, D. E. 2220  
 Ouyang, C. W. 1786, 2937, 3932  
 Ouyang, J. W. 1786, 2937, 3932, 8743



- Ouyang, T. W. 8743  
Ovdienco, A. P. 1179  
Overcash, J. P. 5448, 5501, 6553  
Ovsyannikova, E. S. 10223  
Owadally, A. L. 1526  
Owen, J. R. 2079  
Owens, K. W. 5611, 7681  
Owens, L. D. 9039  
Owens, S. J. 5751  
Oyama, K. 8687  
Øydvín, J. 3602  
Oyedokun, J. B. 7207, 8169  
Øyen, J. 5177  
Özel, M. 8519  
Oziashvili, O. V. 2513  
Özkutlu, M. 3440  
Ozola, L. E. 651  
Pacanowska, A. 1099, 1100  
Paccaud, F. 10285  
Paccaud, F. X. 3966  
Pace, C. de 2669, 5644  
Pacheco, A. C. 8717, 10280  
Pacini, E. 5440  
Păcurar, I. 6912  
Paczkowska, E. 8515  
Paddock, E. F. 8602  
Paderina, E. V. 7116  
Padgham, D. E. 4172  
Padilla B., F. G. 6728  
Padmabai Luke 330  
Padmaja Rao, S. 2603  
Padmanabham, C. 11064  
Padmanabhan, S. Y. 6185  
Pădureanu, T. 6562  
Paepe, R. de 8330  
Páez N., O. 4188  
Pagiotti, R. 5172  
Pahuja, A. N. 9332  
Pai, C. 5125  
Pai, C. K. 2099  
Pai, S. H. 4855  
Paillard, M. 281, 8061, 9591  
Paim, N. R. 4281  
Paiva, M. 5432  
Paiziev, P. 6354  
Pakaln, D. A. 8652  
Pakhomova, G. A. 10541  
Pal, A. B. 7789, 7790  
Pal, B. S. 1211  
Pal, D. K. 9143  
Pal, H. 8117  
Pal, S. S. 3071, 8050, 8060  
Paladi, N. I. 130  
Palágyi, A. 9573  
Palakarcheva, M. 3441  
Palamarchuk, A. I. 194  
Palamarchuk, T. Yu. 489, 491, 7358  
Palán, D. 2238  
Palandzhyan, V. A. 1444  
Palanichamy, K. 7206  
Palanisamy, S. 4116, 4137, 4179, 4184, 7157, 7161, 7163  
Palaniswami, M. S. 10831  
Palaniyandi, V. G. 6195  
Palanjian, V. H. 1444  
Palanjyan, V. H. 1444  
Palazón Español, C. F. 5510  
Palazón Español, I. J. 5510  
Palazyan, T. N. 691  
Pálfi, G. 2005, 8815  
Pálfi, Z. 8815  
Palhano, J. B. 3864  
Pali, A. F. 270, 4997  
Paliava, A. M. 7052  
Palilov, A. I. 7305  
Palilova, A. N. 4992, 6042, 6868, 7051, 7052  
Paliwal, R. L. 3078, 9588  
Pall, B. S. 2073, 10178  
Pallardy, S. G. 6574, 10025  
Pallas, J. E., Jr. 7511, 11057  
Palmer, J. D. 57  
Palmer, J. K. 7799  
Palmer, M. J. 11032  
Palmer, R. G. 4715, 4716, 5692, 6757, 6758, 7766, 8600  
Palmer, T. P. 453  
Palta, J. P. 6322  
Pal'tsev, A. M. 9202  
Paludan, N. 6613  
Pamilo, P. 5726  
Pamoukov, I. 6406  
Pamukov, I. 6406  
Pan, C. L. 8744  
Pan, K. C. 3186  
Pan, K. Q. 3186  
Pan, N. S. 3679  
Pan, S. F. 2099  
Pan, Y. S. 571  
Panarin, I. V. 6988  
Panayotou, P. C. 5018  
Panchal, H. G. 4118  
Pancholy, D. K. 8780  
Panda, A. 2166  
Panda, B. C. 1843  
Panday, S. C. 7004  
Pande, H. K. 5109  
Pande, K. 4757  
Pande, S. 1837  
Pandey, B. P. 2326, 4402  
Pandey, H. N. 10287  
Pandey, K. K. 600, 6401, 10777, 10783  
Pandey, K. N. 5687  
Pandey, R. K. 5672, 11186  
Pandey, R. M. 2661  
Pandey, S. 6067  
Pandey, S. C. 5619, 9277, 11193  
Pandey, V. K. 9826  
Pandeya, R. S. 6399, 7432, 7434  
Pandeya, S. C. 2199  
Pandhare, T. M. 7167  
Pandita, M. L. 844, 896, 929, 6369, 8281, 8970, 9277, 9336, 10741, 11055, 11193  
Pandya, B. P. 4757, 9335  
Panetos, C. P. 9177  
Panetos, K. P. 9177  
Panfil, C. 8810  
Panford, J. A. 1811  
Pangelova-Shch'rkova, I. 6504  
Pangelova-Shturkova, Y. 6504  
Pankaja Reddy, R. 3797  
Pankhurst, C. E. 474, 475, 476  
Pannikov, V. D. 5771  
Pannu, D. S. 1893  
Panse, V. G. 4772  
Panshina, V. P. 6779  
Pant, K. C. 10123  
Panteleeva, E. I. 6539  
Pantić, Ž. 10006  
Panton, C. A. 11140  
Pantulu, J. V. 1182  
Panwar, J. S. 5446, 10002  
Panwar, K. S. 4765  
Panwar, R. S. 8304  
Panwar, V. P. S. 7073  
Pao, C. I. 7136  
Pao, H. C. 2932  
Pao, T. H. 3475  
Papanicolaou, K. 464  
Papenhagen, F. 6323  
Paponov, A. N. 2646  
Papp, E. 10143  
Papstein, F. 4510  
Paquin, R. 7286, 7288  
Paradela Filho, O. 4692, 6376  
Paradies, M. 3959  
Paramjit Singh 7794, 10183  
Parameshwara, G. 3154  
Parameswarappa, R. 9646  
Paramonova, L. A. 3267, 3268, 5217, 10658  
Paranjothy, K. 2459  
Parashar, R. D. 9072  
Paratbadi, G. S. 7168, 7169  
Pardul Khan 6773  
Paria, P. 3380, 4400, 7401  
Paris, H. S. 634  
Parishkura, V. I. 3297  
Parivash Jenabzadeh 10632  
Park, C. H. 3477  
Park, D. Y. 4616  
Park, H. 6765  
Park, H. G. 954, 2703, 4707, 11095  
Park, H. W. 3418  
Park, K. J. 4538  
Park, K. Y. 241, 242, 1121, 1579, 3029, 3746, 3757, 10154, 11155  
Park, M. W. 3094  
Park, N. K. 351  
Park, N. P. 350  
Park, R. K. 3095  
Park, S. H. 350  
Park, S. K. 4616  
Park, S. U. 241, 242, 1121, 3029  
Park, S. Z. 2150  
Park, Y. B. 6611  
Park, Y. G. 6587  
Park, Y. S. 5533  
Parkash Kumar 649, 2438, 4482, 10817  
Parkash, V. 1752, 7922  
Parker, C. 8147  
Parker, J. H. 10906  
Parker, J. S. 10051, 10052  
Parker, M. L. 7652  
Parker, W. H. 7646  
Parkhomenko, A. 1938  
Parkhomenko, R. G. 7002  
Parks, C. R. 9868  
Parlevliet, J. E. 1688, 2461, 5058, 6108  
Parmar, A. L. 2285  
Parmar, C. 2534  
Parmar, K. S. 7189, 10601  
Parmar, S. 7099  
Paroda, R. S. 2886, 4132, 4134, 4868, 6934, 6935, 9460, 9461, 10316, 10326  
Parodi, P. C. 7910  
Parodi, R. A. 4127  
Parrini, P. 3457  
Parrott, W. L. 2313, 2315, 6359, 6361  
Parshina, Z. S. 174  
Parsons, D. C. 4568  
Partanen, C. R. 766  
Partap, P. S. 6369, 9336, 10741  
Parthadeb Ghosh 4696, 6675  
Parthasarathy, V. A. 2621, 11009, 11010, 11038  
Partoiev, K. 4372  
Partyková, E. 2255  
Parvatikar, S. R. 7170  
Pasang, T. J. 3953  
Paschal, E. H. 11171  
Pascual, C. B. 7171  
Pasha, M. K. 7527  
Pashchenko, E. D. 10256  
Pasichnyi, V. V. 10245  
Pas'ko, N. M. 7659  
Pasquini, M. 1860, 1865, 1866, 2964, 3959  
Pass, H. 103, 6905  
Passioura, J. B. 193, 10331  
Passos, F. A. 9995  
Passos, L. P. 735  
Pastena, B. 7615  
Pastor-Corrales, M. A. 8151  
Pastorek, M. 2692  
Pastukhov, G. P. 1812  
Pastushenko-Strelets, N. A. 2032  
Pasupuleti, C. V. 9598  
Pásztor, K. 1124, 8792, 9521, 9546, 9547  
Patak, R. S. 9299  
Pataki, I. 8367  
Patel, C. B. 401, 8217  
Patel, C. J. 4711  
Patel, D. J. 7720  
Patel, G. A. 7984  
Patel, G. J. 2382, 3742, 3743, 7461, 7720  
Patel, I. H. 4139  
Patel, J. K. 3191  
Patel, M. R. 3137  
Patel, M. Z. 1879  
Patel, N. G. 8214  
Patel, N. K. 3191  
Patel, N. R. 6947  
Patel, O. P. 2701  
Patel, P. G. 4711  
Patel, P. K. 7487  
Patel, R. R. 7387  
Patel, R. S. 3191  
Patel, U. R. 4711  
Patel, V. S. 8214  
Paterniani, E. 7040  
Paterson, D. R. 5276  
Pathak, M. D. 398, 399, 6158, 9712  
Pathak, P. K. 1205, 8195, 8212, 9711  
Pathak, R. S. 10112  
Patil, A. B. 8364  
Patil, A. V. 6538  
Patil, B. B. 8139  
Patil, B. N. 637, 2419  
Patil, B. P. 2301, 8303, 8307  
Patil, F. B. 2425  
Patil, F. S. 9081  
Patil, G. D. 2425, 2437, 8364, 8365, 8372, 9077  
Patil, J. A. 4756  
Patil, J. R. 8372  
Patil, L. K. 5259  
Patil, M. S. 1339, 5292  
Patil, N. M. 989, 2760  
Patil, N. Y. 2408, 8365  
Patil, P. S. 2437, 8372, 9077  
Patil, R. B. 10186  
Patil, R. C. 5081, 5082, 6128, 7167, 7168, 7169, 10576, 10740  
Patil, R. R. 6933  
Patil, S. H. 7166, 10585  
Patil, S. J. 1138  
Patil, S. M. 10360  
Patil, S. S. 2089, 7170, 9077  
Patil, S. S. D. 8303  
Patil, S. V. 339, 1191  
Patil, V. D. 2426, 2439, 9015  
Patil, V. K. 913, 2549, 2551, 10883, 10886  
Patil, V. N. 7140, 7154  
Patil, V. P. 2547  
Pathkullaev, S. 4028  
Patnaik, A. 10598  
Patnaik, M. C. 10566  
Patnaik, S. N. 1564  
Patolia, J. S. 5137  
Patra, G. J. 7503  
Patrick, Z. A. 2651  
Patseka, D. I. 9609  
Pattabiraman, T. N. 6112  
Patterson, D. T. 5382  
Patterson, E. B. 1948  
Patterson, F. L. 1106, 2899  
Patterson, H. D. 5885  
Patterson, T. F. 4594  
Patterson, W. K. 5501  
Patyna, H. 3101  
Pätzold, G. 2468  
Paul, M. D. 4183  
Paule, C. M. 4212, 6159  
Paulech, C. 3967, 6979  
Paulis, J. W. 1133  
Paul, R. E. 10080  
Paulsen, G. M. 277, 1077  
Paulsson, S. 3322  
Paunović, R. 3560  
Paunović, S. A. 7565  
Pausheva, Z. P. 404  
Paustovskaya, Kh. S. 7302, 9757  
Pava, H. M. 4145  
Pavek, J. J. 8285  
Pavlov, A. L. 4869  
Pavlov, N. E. 2205  
Pavlova, L. N. 4869  
Pavlova, L. S. 11133, 11157  
Pavlova, N. A. 10639, 10640  
Pawar, A. M. 4756  
Pawar, M. N. 10565  
Pawar, S. E. 955, 4761, 7067, 7068, 8593  
Paxton, J. D. 2824  
Payán A., F. 4406  
Payne, P. I. 90, 4876, 5901  
Payne, R. C. 2721  
Paz León, J. 9296, 11091  
Pazy, B. 7307, 8268  
Pazzi, G. 3291  
Peacock, W. J. 1070, 3040, 5806, 8787, 10243, 10259, 10261  
Peadar, R. N. 6252  
Pearce, D. T. 3000



- Pearce, K. 928  
 Pearce, N. 1673  
 Pearman, G. C. 4366  
 Pearman, I. 1714, 1715, 7937  
 Pearson, O. E. 5720  
 Peccetti, G. 1740  
 Pechura, A. A. 5704  
 Peck, R. A. 5803  
 Pederick, L. A. 8477  
 Pederson, D. G. 4782  
 Pederson, G. A. 6263, 7296  
 Pedroso, B. A. 3173, 8887  
 Pee, W. M. van 9976  
 Pearson, M. E. 10997  
 Pegiati, M. T. 4094, 6085  
 Peiretti, R. A. 1195  
 Peiris, P. E. 8897  
 Peitel', M. Ya. 2543  
 Peiu, M. 6498  
 Pekić, S. 4037  
 Pelikán, J. 1263, 2211, 2213  
 Pelletier, G. 7288  
 Pelletier, G. J. 4838, 7082  
 Pelofske, P. J. 5618  
 Peloquin, S. J. 4337, 4339, 6313, 7324, 10688  
 Peña, A. de la 7998  
 Pence, V. C. 628  
 Penchev, P. N. 2017  
 Penčić, V. 3075  
 Peneva, T. I. 1047, 7912  
 Peng, C. Y. 5765  
 Peng, L. P. 9671  
 Pengelly, B. C. 6236  
 Penkov, I. 6521  
 Penner, D. 4832  
 Pennone, F. 6477  
 Penny, L. H. 10474, 10475  
 Pentad, D. 7928  
 Pepin, G. W. 5164  
 Pepin, H. S. 4543, 4547  
 Peraiah, A. 5144, 5146  
 Perdoma, R. E. 10747  
 Perdu, Z. A. 9199  
 Peregaeva, L. A. 465  
 Pereira, A. 8357  
 Pereira, A. J. 10857  
 Pereira, A. S. 654, 655, 656, 2453, 3399, 5335  
 Pereira, A. V. 5982  
 Pereira, M. M. 8357  
 Perenzin, M. 6022  
 Perepadya, Yu. G. 2479  
 Perepechko, N. P. 9902  
 Peresypkin, V. F. 196, 9427  
 Pereverzev, D. S. 7070  
 Pérez, A. 9126, 9127, 9142  
 Perez, C. 4106  
 Perez, C. M. 4212, 8185  
 Pérez-Camacho, F. 4480  
 Pérez de la Vega, M. 1912, 5852  
 Pérez, E. 9126, 9127  
 Pérez, F. R. 10569  
 Pérez González, R. 10826  
 Perez-Trejo, F. 2202  
 Perfil'ev, V. E. 8681  
 Perfil'eva, T. S. 1897  
 Pergaeva, L. A. 2242  
 Perim, S. 4423  
 Perin, S. 3412, 4423  
 Perju, T. 6498  
 Permadi, A. H. 8651  
 Pernès, J. 5065, 5066  
 Perreux, D. 3414, 5336  
 Perrino, P. 10279  
 Perrotta, G. 3570  
 Perry, D. A. 810  
 Perry, R. L. 5491  
 Pershina, L. A. 10533  
 Persley, D. M. 7177  
 Persley, G. J. 5336  
 Peruanskiĭ, Yu. V. 3906  
 Peruffo, A. dal B. 1742  
 Perur, N. G. 2063  
 Pešek, J. 1263, 2213  
 Peševska, V. 11054  
 Pet, G. 6670  
 Petar, J. 10375  
 Petcu, L. 6906  
 Petelina, N. N. 4232  
 Peter, K. V. 2648, 7706, 10087, 10115, 10116, 10840  
 Peters, E. J. 9737  
 Peters, I. 10490  
 Peters, K. M. 5368, 5369  
 Peters, L. L. 5087  
 Peters, R. J. 6457  
 Peters, S. 826  
 Peters, S. C. 9103  
 Petersen, H. D. 3364  
 Peterson, C. E. 837, 4602, 5549, 5610, 5611, 7658, 7681, 7685, 8502, 8504  
 Peterson, C. J. 190, 7885  
 Peterson, G. C. 4146  
 Peterson, H. L. 7301  
 Peterson, M. L. 1219, 4189, 7220, 9681  
 Peterson, P. A. 4025, 4955, 4956, 10427, 10441, 10449, 10464  
 Petkov, V. V. 451  
 Petkova, T. 6646  
 Petpisit, V. 10330  
 Petranev, G. I. 3297  
 Petrescu, N. C. 914  
 Petri, J. L. 10857  
 Petrini, J. A. 10568  
 Petrogradov, K. V. 8256  
 Petrosyan, E. A. 6961  
 Petrosyan, S. M. 5631  
 Petrov, D. F. 2480  
 Petrov, Yu. A. 4523  
 Petrova, K. A. 115  
 Petrović, M. 3392  
 Petrović, S. 2906  
 Petruk, W. 4100  
 Petrushina, M. P. 575  
 Petry, D. 5754  
 Pett, I. 5269  
 Pettit, R. E. 7518  
 Petukhova, I. P. 2557, 4576  
 Petzold, H. 8519  
 Peyachoknagul, S. 8629  
 Pezzali, M. 2053  
 Pfahler, P. L. 1980, 10408  
 Pfannenstiel, M. A. 5266  
 Pfeffer, C. 514  
 Pfeifer, R. P. 2987  
 Pfeiffer, T. 5215  
 Pfunder, A. 3688  
 Phadnis, B. N. 4174  
 Pham, H. N. 10501  
 Phan Van Chuong 2141  
 Phaneendranath, B. R. 7989  
 Pharis, R. P. 3638, 7057  
 Pharr, D. M. 5275, 7365  
 Phatak, S. C. 5624, 6324, 7337, 7707  
 Philbeck, R. B. 2619  
 Philip, R. 4218, 5139, 8901, 9700, 9701  
 Philippines, International Rice Research Institute 388, 8154  
 Phillips, D. A. 3236, 5222, 10176  
 Phillips, D. V. 8611  
 Phillips, G. C. 3282, 3283  
 Phillips, J. C. 6793  
 Phillips, J. M. 7176  
 Phillips, J. R. 1118, 5232  
 Phillips, M. S. 6333  
 Phillips, R. L. 1943, 4823, 9535, 9565  
 Phillipson, J. D. 1390  
 Phulsundar, R. B. 7208  
 Pi, C. P. 2077, 3151  
 Pi, F. Y. 4044  
 Pianchi, A. A. 10398  
 Picard, J. 2665, 6683  
 Piccolo, B. 4112  
 Picha, D. H. 8553, 8557  
 Pichot, J. 10148  
 Pickering, R. A. 2027, 3097, 5045, 6082  
 Pickersgill, B. 1420, 1609, 4999  
 Pickles, D. G. 2908  
 Piech, J. 2888  
 Pieczarka, D. J. 4694, 5020  
 Piedra, S. 9297, 10135, 11092  
 Pienaar, R. de V. 2891  
 Piening, L. J. 8124  
 Pierce, B. A. 5724  
 Pierce, R. 2737, 4267  
 Pierquet, P. 4564  
 Pierre, W. H. 9556  
 Pierrès, D. le 9048  
 Pieters, R. 3450  
 Pietka, T. 3668  
 Pietrzak, H. 7233  
 Pietsch, D. 8795, 8879  
 Pietsch, G. 4860  
 Pietzsch, C. 8786  
 Pigarev, F. T. 806, 2575  
 Pignone, D. 2675  
 Pigott, C. D. 8472  
 Pihan S., R. 5902  
 Pika, M. A. 3313  
 Pika, N. A. 3313, 7343  
 Pikaeva, N. 5476  
 Pike, L. M. 5613  
 Pilch, J. 4922  
 Pilet, P. E. 4048  
 Pillai, K. B. 6193, 6194  
 Pillai, K. S. 9087  
 Pillai, N. U. 5741  
 Pillai, O. A. A. 8516  
 Pillai, V. S. 2449  
 Pillay, M. 10757  
 Pilowsky, M. 10083  
 Pils, G. 3226  
 Pinchbeck, B. R. 5241  
 Pinheiro, R. V. R. 735  
 Pink, D. A. C. 5865  
 Pinkerton, A. 3269  
 Pintér, L. 1136, 2005, 6026, 8815, 8826, 9572  
 Pintér, Z. 1136  
 Pinthus, M. J. 5874  
 Piovarči, A. 8036, 9530  
 Piquemal, G. 3471, 5380, 5381, 7494  
 Piralov, G. R. 10300  
 Pirani, V. 4344  
 Pirasteh, B. 3956  
 Pirieva, G. G. 2544  
 Piróg, H. 7227, 7986  
 Pirone, T. P. 7475  
 Pirtskhalaishvili, S. Kh. 1386  
 Pirvu, T. 4908  
 Pisarev, B. A. 2261  
 Pisareva, L. A. 7927, 8734, 9431  
 Pisessookbuntern, W. 10324  
 Piskun, G. I. 5256  
 Piskunova, G. V. 10352  
 Piticaş, G. 8984  
 Pitririmova, M. A. 1007, 1046  
 Pitrat, M. 4598, 5605, 8500, 11012, 11015  
 Pittman, G. M. 7242, 7270  
 Pittman, U. J. 5844  
 Pitz, W. J. 6693  
 Pivoryunas, Yu. 458  
 Pivovarci, A. 9530  
 Pivovarov, V. F. 9214, 9280, 9296, 9297, 9905, 10070, 10155, 11091, 11092  
 Pivovarova, N. S. 8964  
 Plaisted, R. L. 6301, 7320, 7327  
 Plakhotnik, V. V. 1855, 1905  
 Planchon, C. 1577, 11148  
 Plarre, W. 1911  
 Platonova, R. N. 10542  
 Plazinić, R. 3547  
 Plekhanova, L. P. 11034  
 Plekhanova, M. N. 9152  
 Plekhanova, T. F. 9211  
 Plessis, J. G. du 1915  
 Pletea, V. 9783  
 Plittmann, U. 7307, 8268, 8571, 8959  
 Płocharski, W. 7582, 8406  
 Plokhikh, V. B. 10766  
 Plooy, F. I. du 6320  
 Plotnikov, P. N. 543  
 Plotnikov, V. K. 4055  
 Plotnikova, A. V. 307  
 Plotnikova, Yu. M. 3974  
 Plšková, P. 3592  
 Plucińska, M. 8536  
 Pobedonostseva, E. A. 4228  
 Pochaba, L. 1061, 7891  
 Pochard, E. 1417, 9910  
 Pochet, P. 1707  
 Poddubnaya-Arnol'di, V. A. 232, 2362  
 Poddubnaya, I. F. 8000  
 Podgaetskii, A. A. 7343  
 Podgornyi, Yu. K. 9198, 9199, 10957  
 Podkladkin, V. N. 10333, 10334  
 Podkolzina, V. E. 3463  
 Podol'skaya, A. P. 1478  
 Podoplelov, A. V. 3997  
 Podvez'ko, E. S. 9621, 9627  
 Podvez'ko, V. V. 9620, 9626  
 Podzharova, Z. S. 8475  
 Poey, F. R. 1040  
 Pogan, E. 5154  
 Pogna, N. E. 1742, 9550  
 Pogorelova, L. G. 2947  
 Pohl, R. W. 4270  
 Pohler, W. 4087, 5944  
 Pohlheim, F. 6534  
 Poisson, C. 9434  
 Pokislyuk, N. N. 3265  
 Pokle, Y. S. 2710  
 Pol, P. S. 4149  
 Polanowski, A. 8064  
 Polański, S. 1290  
 Polchaninova, T. V. 2811  
 Polenova, I. N. 2996, 2999  
 Polerecký, O. 9526, 9575, 9586  
 Polignano, G. 2672, 2673  
 Polignano, G. B. 2674  
 Polikarpova, L. G. 740, 7591  
 Polimbetova, F. A. 171  
 Polishvaiko, M. N. 467  
 Poljakoff-Mayber, A. 7787  
 Polkanova, T. P. 7305  
 Polkovnikova, M. A. 10158  
 Pollack, B. L. 7727, 8564  
 Pollacsek, M. 5999, 6035  
 Polle, E. 5884  
 Pollihamer, Z. 8711  
 Pollini, A. 3563  
 Pollmer, W. G. 1130, 1981, 1995, 4054  
 Polonetskaya, L. M. 2811, 7042  
 Polonskaya, K. I. 203  
 Polotebnova, T. U. 5297, 9804  
 Polozhenets, V. M. 508  
 Poltarev, E. M. 1845  
 Polukhin, M. A. 8072  
 Polukhina, P. K. 7084  
 Polyakov, A. V. 980, 6786  
 Polyakova, A. K. 10732  
 Polyanskaya, A. M. 4643  
 Poma, N. G. 2896  
 Pomazkov, Yu. I. 677  
 Pomeranz, Y. 181, 372, 1076, 1095, 2040, 5061, 10246  
 Pommer, C. V. 8819, 10484, 10504  
 Pomohaci, N. 772  
 Pomortsev, A. A. 309  
 Pompeu, A. S. 4692, 4693, 4695  
 Ponchia, G. 4575  
 Poneleit, C. G. 5998, 6030, 6032, 6764  
 Ponert, J. 2033  
 Pongprasert, S. 397  
 Ponitka, A. 6087  
 Ponnampereuma, F. N. 354, 3166, 8157, 8159, 8193, 9683  
 Ponnuswamy, V. 11045  
 Ponomarchuk, V. P. 7613  
 Ponomarenko, L. A. 6021  
 Ponomarenko, V. I. 6859  
 Ponomarenko, V. V. 1443, 4516, 7531  
 Ponomarev, A. V. 5612  
 Ponte, A. M. da 6424  
 Ponti, I. 3563  
 Ponti, O. M. B. de 7694, 7695, 7696, 9413, 11026  
 Pontikis, C. A. 9897  
 Pool, H. J. 7616  
 Poonaam 4659  
 Pooni, G. S. 1372  
 Pooni, H. S. 582, 1372, 6402, 6403, 7431, 8333



- Poonpolgul, S. 2736  
 Popa, G. F. 943  
 Popa, S. 6912  
 Pope, M. 11088  
 Pope, W. K. 1835  
 Popenoe, J. 6541  
 Popescu, G. 5921, 5927, 5970  
 Popescu, I. 8816  
 Popescu, M. 6562  
 Pophali, D. J. 2173  
 Popineau, Y. 7946  
 Popli, S. 11158  
 Popov, B. V. 1175, 9512, 9619, 9622  
 Popov, C. 6968  
 Popov, G. I. 1909  
 Popov, N. 6050  
 Popov, P. 7954  
 Popov, P. P. 8488  
 Popov, P. S. 642  
 Popov, P. V. 6358  
 Popov, V. I. 5304  
 Popov, V. Ya. 9205  
 Popova, I. V. 2530, 5476, 5480  
 Popova, M. 6460  
 Popova, M. B. 2171, 6191, 6192  
 Popova, O. N. 297, 8095, 8840  
 Popova, P. Ya. 530, 3367, 4382  
 Popović, Ž. 3921, 4037  
 Popovich, A. L. 5715  
 Popov, G. 1054, 2877, 2878, 3954, 10285  
 Populer, C. 7536, 7537  
 Poradzinska, J. 1152  
 Porath, D. 11042  
 Porceddu, E. 939, 1656, 1728, 2672, 2673, 7930, 10279  
 Porchelli, M. D. 3952  
 Pore, M. S. 2075, 2762, 2763  
 Porosha, S. I. 790  
 Porsche, W. 2952, 3927  
 Porter, E. K. 3050  
 Porter, K. B. 1049  
 Portillo, D. 10803  
 Porto, M. P. 10568  
 Portugal, Estação Agronómica Nacional 10220, 10221  
 Posgay, E. 10149  
 Pospelova, L. S. 10299  
 Pospelova, L. V. 10328  
 Pospíšil, F. 2508, 6799  
 Pospíšilová, D. 8444, 8445, 8446, 8447, 9165  
 Pospíšilová, M. 2499  
 Postgate, J. R. 9395  
 Postiglione, L. 5071  
 Postigo, R. 9351  
 Poston, F. L. 5011  
 Potapenko, A. I. 6549  
 Potapenko, A. S. 10386  
 Potapov, A. P. 8046  
 Potapov, S. P. 2535  
 Potapova, I. M. 10927  
 Potapova, S. M. 1007  
 Potec, E. 9113  
 Potec, I. 9113  
 Potokina, S. A. 120, 8719  
 Potrykus, I. 1, 3825, 10045  
 Pötter, H. 9918, 10846  
 Potter, J. M. S. 1442  
 Potter, J. W. 2651, 4289  
 Potti, N. N. 9032, 9140  
 Potty, N. N. 2450, 2462, 9032, 9140  
 Pouget, R. 1488  
 Poulsen, C. 4017, 11042  
 Poulsen, M. H. 2664, 2680, 6688, 6692  
 Poulter, N. H. 6277  
 Powell, J. B. 5206, 6114  
 Powell, J. R. 3421  
 Powell, N. T. 2365, 5339, 10797  
 Powell, W. 5963  
 Powers, H. R., Jr. 6591, 8484  
 Powling, A. 10531  
 Pozolotina, V. N. 4584, 9185  
 Prabha, S. 4678  
 Prabhakar, M. 1191  
 Prabhakar Reddy, I. 11064  
 Prabhakara Rao, M. V. 7015, 9471  
 Prabhu, A. S. 4700, 5140  
 Pradervand, J.-C. 238, 1043, 6914  
 Pradhan, S. K. 2395  
 Prahlada Rao, G. 4154  
 Prakasa Rao, V. S. 5849  
 Prakash, G. 2622  
 Prakash, J. 8736  
 Prakash, N. 10231  
 Prakash, R. 1584  
 Prakash, S. 1233, 2970, 6614, 7113  
 Pramanik, S. 8368  
 Pramod Kumar 3901, 5708, 8857  
 Prasad, A. 5548, 10985  
 Prasad, A. B. 144, 3735, 8961, 8962  
 Prasad, A. S. R. 9663, 9685  
 Prasad, B. L. 2200  
 Prasad, G. 8106, 8116, 8117  
 Prasad, G. S. V. 9685  
 Prasad, K. 1079  
 Prasad, K. S. K. 1237, 1416, 3720  
 Prasad, L. 5548  
 Prasad, M. M. K. D. 6746  
 Prasad, M. N. 4116, 4137, 4179, 4184, 7157, 7161, 7163  
 Prasad, P. N. 3382, 4497  
 Prasad, P. R. 3735  
 Prasad, R. 10985  
 Prasad, S. C. 358, 2117  
 Prasad, V. V. S. 11186  
 Prasada Rao, K. E. 2095, 4114, 4115  
 Prasada Rao, M. P. 9007  
 Prasada Rao, P. V. 10785  
 Prasada Rao, R. D. V. J. 5404, 11064  
 Prasada Rao, U. 8923, 10611  
 Prasadaraao, K. K. 4412, 10755  
 Prasanna, K. P. R. 10118  
 Prasolov, P. I. 3962, 9487  
 Pratap Reddy, N. 5654  
 Pratt, C. 1600  
 Pratt, D. 9265  
 Pratt, H. M. 7099  
 Pratt, R. C. 8554  
 Pratt, R. G. 4168  
 Pravdin, L. F. 8486, 8487  
 Pravdiva, N. P. 1827  
 Prayag Srikant 1604  
 Prechachat, C. 5103, 5111, 5113  
 Precheur, R. J. 8278  
 Predescu, G. 6505, 7558  
 Preil, W. 906  
 Preiss, J. 8818  
 Prem Nath 2594  
 Prem Sagar 2705  
 Prem Sekar, S. 1608  
 Premakumari, D. 3494  
 Prentice, N. 7105  
 Presolska, P. 1965  
 Pressolska, P. 1965  
 Prest, T. J. 6129  
 Pretorian, D. M. 5987  
 Pretorius, C. J. H. 9044  
 Prette, I. R. 6127, 6244  
 Prévost, D. 4287  
 Price, H. J. 2298, 6015, 6016  
 Price, K. R. 2266  
 Price, M. L. 2096, 5639  
 Price, P. B. 1159  
 Price, S. 5807  
 Price, T. V. 6810, 7714  
 Prickril, B. C. 7511  
 Priehradný, S. 5057  
 Priemuth, R. 9426  
 Priestley, R. H. 5815, 5819, 5820  
 Prihod'ko, N. I. 8547  
 Prine, B. M. 8369  
 Prine, G. M. 6220  
 Pring, D. R. 250, 1975, 1976, 3048, 8026, 8027, 8043, 10468  
 Prinz, D. 7406, 9020  
 Prior, C. 3451  
 Prister, B. S. 1626  
 Prisyazhnaya, L. P. 2976, 10309  
 Pritam Singh 8485  
 Pritchett, J. A. 7876  
 Privalov, G. F. 900  
 Probasco, M. 702, 6501  
 Proceddu, E. 5873  
 Procházka, F. 4078  
 Procházka, J. 1256, 7292  
 Procopiou, J. 3476  
 Proctor, J. T. A. 2482  
 Proebsting, E. L., Jr. 5441  
 Prohorova, G. S. 2631  
 Prokhorov, M. N. 2817  
 Prokhorova, G. S. 2631  
 Prokhorova, L. N. 576  
 Prokof'eva, E. V. 303  
 Prokof'eva, Z. D. 178  
 Prokopenko, S. E. 315, 3128  
 Prokudina, O. N. 966  
 Promchainan, S. 8914  
 Proficzuk, S. 7231, 9722, 9723, 9724  
 Pronina, L. D. 292  
 Pronina, N. D. 9444  
 Proreshneva, R. K. 10173  
 Protasevich, R. T. 5890, 6868  
 Proudfoot, K. G. 5246, 7351  
 Provazníková, E. 3437  
 Providenti, R. 1540, 5599  
 Prygun, V. S. 5311, 5312, 10731  
 Pryor, A. 3040  
 Przewoźny, T. 5252  
 Przybylska, J. 8619  
 Pshenitsyn, L. A. 233  
 Pshennikova, L. M. 2574  
 Ptáček, V. 1263  
 Ptáčková, M. 1273  
 Puchalski, J. T. 883, 11018, 11019  
 Puech, J. 10145  
 Puertas, M. J. 7998, 10417  
 Puff, C. 1391  
 Pugach, E. A. 10022  
 Pugach, N. G. 1909  
 Pugachev, I. I. 911, 3348  
 Pugacheva, G. T. 10410  
 Pugacheva, T. I. 6996  
 Puglia, S. del 7030, 7132  
 Pugsley, A. T. 10277  
 Puia, I. 460  
 Pukacka, S. 3628  
 Pukanova, Z. G. 10882  
 Pukhal'skii, A. V. 43  
 Pulatov, M. 529, 548, 5299, 9005  
 Pulli, S. 1119  
 Pulliam, T. L. 888  
 Puobišová, B. 3003  
 Puodzhukas, I. Yu. 7081, 7094  
 Pupipat, U. 2736  
 Purcell, A. E. 1324, 1325, 4362  
 Purcell, A. H. 10939  
 Puri, R. P. 9695  
 Purnhauser, L. 6120  
 Purohit, A. G. 5462  
 Purves, R. G. 456  
 Puşcaşu, A. 9437  
 Pushina, R. N. 5909  
 Pushpa, G. 328, 945, 1777, 2074, 2452, 2599  
 Pushpa Singh 2455  
 Pushpavesa, S. 3163  
 Pustovoit, G. V. 643, 644, 1411, 2422  
 Pusztai, A. 946  
 Putievsky, E. 7765  
 Putintsev, A. F. 10174  
 Putnam, A. R. 3703  
 Putnikov, L. I. 2232  
 Putnová, V. 1273  
 Putsa, N. M. 6264  
 Puzyreva, V. A. 6917  
 Pyl'nev, V. M. 131, 1083, 2980, 3924, 3952  
 Pyl'neva, P. N. 4152, 10486  
 Pyl'nova, T. A. 5306  
 Pynzar', S. L. 10278  
 Qi, P. K. 2099  
 Qian, M. M. 1798  
 Qian, S. Y. 9000  
 Qiaoyan, C. 7541  
 Qiu, Z. S. 723  
 Quadros, A. T. F. de 10578  
 Quagliotti, L. 653, 10110  
 Qualset, C. O. 2898, 3905, 5875, 5882, 9446  
 Quamme, M. A. 3510  
 Quarin, C. 6228  
 Quarles, R. F. 7290  
 Quarrie, S. A. 1101, 1722, 7890  
 Quarta, R. 3508, 6477, 6509  
 Queiroz, M. A. de 7660, 7751  
 Quesenberry, K. H. 2207, 4292, 11097  
 Quetier, F. 4824, 8729  
 Quick, J. S. 104, 1743, 5841, 7880, 7881, 7945  
 Quick, W. A. 6299  
 Quideiz, B. 9683  
 Quilantán Villarreal, L. 10826  
 Quinlivan, B. J. 4300  
 Quinn, J. G. 4656  
 Quinones, F. A. 6708  
 Quintero, S. 7474  
 Quiros, C. F. 1266, 2218, 2219, 8254  
 Quiros Dávila, J. 8793  
 Quisenberry, J. E. 3365, 5301, 6341, 6350  
 Qureshi, R. A. 8996  
 Rabakoarihanta, A. 4684  
 Rabie, H. 8792, 9521  
 Rabindra, B. 2159, 8900  
 Rabinowitch, H. D. 847  
 Rabotyagov, V. D. 6462, 10224, 10836, 10839  
 Rabson, R. 1716  
 Racchi, M. L. 7044, 8028  
 Rachapaetayakom, P. 8636  
 Rachie, K. O. 8649  
 Rachman, A. 4428, 9850  
 Rachman Sk, A. 4428  
 Radcliffe, E. B. 5264  
 Raddi, P. 9200  
 Raděj, J. 1271  
 Radford, B. J. 640, 641  
 Radhakrishna, K. 9637  
 Radhakrishnan, M. R. 3153  
 Radhakrishnan, T. C. 2450, 2462, 8907, 9140  
 Radhey Shyam 6992, 8779  
 Radić, L. 8012  
 Radkov, P. 6714  
 Radley, M. 3923  
 Radojević, L. 802  
 Radović, G. 4020  
 Rădulescu, E. 5258  
 Radushinskaya, I. P. 10017  
 Radvanyi, J., Jr. 6553  
 Rady, M. S. 534, 6002, 6003  
 Radyuk, V. A. 6478  
 Raeuber, A. 3331  
 Rafalski, A. 7233  
 Raficul Islam 3790  
 Rafiqul Islam 3790, 4672  
 Raggi, V. 1847  
 Raghava Ram, N. V. 2448  
 Raghavan, V. 661  
 Raghavendra Rao, M. 9061  
 Raghunadha Rao, C. 7160  
 Raghuvanshi, R. K. 1521  
 Raghuvanshi, S. S. 6276  
 Raghuvardhan Reddy, S. 4154  
 Ragimov, M. A. 5398  
 Rahalkar, G. W. 3373  
 Rahe, J. E. 4608, 4610  
 Rahiman, B. A. 9086  
 Rahman, L. 11130  
 Rahman, M. M. 3194  
 Rahman, M. S. 8750  
 Rai, B. 4035, 7706, 9059, 10811  
 Rai, K. N. 1225, 4932  
 Rai, P. S. 2119



- Rai, P. V. 2514, 9025, 9839  
 Rai, R. C. 10133  
 Rai, R. K. 1787  
 Rai, R. S. 327  
 Rai, R. S. V. 369, 2132, 4215, 5132, 9687  
 Rai, V. K. 3066  
 Raiford, T. J. 711, 6511  
 Raina, G. L. 8206  
 Raina, R. 2954  
 Raina, S. K. 7442  
 Rainguez, M. 9558  
 Rains, D. W. 5787, 5790, 5882  
 Raj, D. 5134  
 Raj, R. 7161, 7163  
 Raja Kumar, N. 2405  
 Rajacopalan, K. 2432  
 Rajagopal, R. 4179  
 Rajan, K. M. 6180  
 Rajanaidu, N. 2430  
 Rajaram, S. 4907, 10318  
 Rajasekaran, B. 4177  
 Rajashekar, C. 6203  
 Rajendra, B. R. 6952, 9408  
 Rajendra Jain 1829  
 Rajendran, P. G. 5331  
 Rajendran, R. 4697, 4767, 6800, 8632  
 Rajewar, S. R. 913  
 Rajki, B. 658  
 Rajki, E. 1065, 4865, 6120, 8757  
 Rajni Raina 2954  
 Rajput, M. A. 6890  
 Raju, D. 2090, 9646  
 Raju, D. B. 1022, 6791  
 Raju, D. N. N. 9907  
 Raju, D. S. 6112  
 Raju, K. S. 9007  
 Raju Philip 4218, 5139, 8901, 9700, 9701  
 Raju, T. N. 7801  
 Rakhimzhanov, A. G. 3353  
 Rakhmankulov, S. A. 10711  
 Rakhmanov, R. R. 529  
 Rakitina, A. N. 9516  
 Rakotoarisoa, R. R. 9751  
 Rakovskii, V. D. 7871  
 Rakow, G. 411, 2398, 4465  
 Rakowska, M. 7485  
 Rakshit, S. C. 2320, 9018  
 Ral'ko, V. P. 6939  
 Rallo Romero, L. 4480  
 Ram, C. 7793  
 Ram, D. 7895  
 Ram, H. 1022, 4131, 7143, 8883  
 Ram, H. Y. M. 1355, 1408, 4762  
 Ram Krishna 5709  
 Ram Milan Pandey 2661  
 Ram, N. V. R. 2448  
 Ram Nath 1294  
 Ram Nath Kaw 9318  
 Ram Parkash Dua 1409  
 Ram Prakash 1584  
 Ram Raj 7161, 7163  
 Ram, T. 2400  
 Rama Mohan Rao, T. V. S. 4164  
 Rama Prasanna, K. P. 10118  
 Rama Rao, A. S. 560  
 Ramachander, P. R. 2603, 4697  
 Ramachandram, M. 6454, 7497  
 Ramachandran, C. 2634, 10074, 10087, 10115, 10116  
 Ramachandran, M. 2118, 3449, 9658, 9876  
 Ramachandran Nair, Y. 6736  
 Ramachandran, T. K. 10831  
 Ramadasan, A. 10895  
 Ramage, R. T. 5792  
 Ramakanth, R. S. 989  
 Ramakrishnan, A. 2758, 9300, 9908  
 Ramakrishnan, V. 370  
 Ramakrishnaya, G. 380  
 Ramalingam, S. 9908  
 Ramamurthy, A. 4991  
 Raman, K. 6044, 8040  
 Raman, K. V. 11112  
 Raman, V. S. 4135  
 Ramankutty, N. N. 2110  
 Ramanna, M. S. 1307, 2259, 6303, 6304, 9385  
 Ramanujam, K. 4913  
 Ramanujam, S. 1198, 1745, 1828, 1876, 8960, 9340, 11197  
 Ramapandu, S. 9007  
 Ramavarma, K. T. 610, 7471, 7472  
 Ramazanov, S. S. 4540  
 Rambo, A. T. 1682  
 Ramel, C. 10166  
 Ramesh, B. 1214, 2126  
 Ramesh Chandra 7329  
 Ramesh, K. V. 2728, 5390, 10584  
 Rameshwar Singh 327  
 Ramey, H. H., Jr. 6352  
 Ramina, A. 8422  
 Ramirez, D. A. 6147  
 Ramirez Martinez, M. 5267  
 Ramirez Ortiz, A. 73  
 Ramishvili, E. R. 7684  
 Ramishvili, G. G. 9131, 10218  
 Rammah, A. M. 8954  
 Ramos-Elorduy de Conconi, J. 5267  
 Ramos Monreal, A. 4299, 4300  
 Ramos R., A. 6716  
 Ramraj 7157  
 Ramsay, G. 3355, 4371  
 Ramthun, L. E. 1559  
 Ramtohil, M. 1526  
 Ramulu, K. 3708, 4644, 11052  
 Rana Muhmad Afzal Naz 6894  
 Rana, R. S. 1200, 6141, 6953, 9306  
 Rana, V. K. S. 4129, 9639  
 Ranadive, S. J. 3386  
 Ranalli, P. 3827, 7784  
 Ranch, J. P. 8381  
 Ranchyalis, V. P. 936, 1676  
 Rand, R. E. 5647, 6701  
 Randhawa, A. S. 1857, 3886, 3889, 4878  
 Randhawa, K. S. 8967  
 Randle, W. M. 6467  
 Rane, D. A. 2509  
 Rang, A. 10182  
 Ranga Rao, V. 6454, 7497  
 Rangaiah, B. V. 8152  
 Rangaraju, R. 9307  
 Rangaswamy, P. 10988  
 Rangaswamy, V. 5740  
 Rani, N. S. 3201  
 Ranjana Kaul 6429  
 Rao, A. P. 4147, 5992, 8041, 8830  
 Rao, A. S. 3963, 6760, 8760, 11064  
 Rao, A. S. R. 560  
 Rao, A. V. 9663  
 Rao, A. V. S. 2132  
 Rao, A. Y. 10592  
 Rao, B. G. S. 9998  
 Rao, C. R. 7160  
 Rao, C. S. 6177, 9702  
 Rao, D. 8271  
 Rao, D. S. B. 1356  
 Rao, D. V. M. 10820  
 Rao, D. V. S. 4183  
 Rao, G. K. 4163, 7158, 7159, 7162  
 Rao, G. M. 10592  
 Rao, G. N. 9871  
 Rao, G. P. 4154  
 Rao, G. R. 2456, 2457, 2657, 7599, 10845, 10847  
 Rao, G. S. P. 9608  
 Rao, G. V. 8917  
 Rao, G. V. S. 3133  
 Rao, I. N. 7015  
 Rao, K. A. 610, 7471, 7472, 9066  
 Rao, K. B. 2063  
 Rao, K. E. P. 2095, 4114, 4115  
 Rao, K. S. 9007  
 Rao, K. V. 3797, 3798  
 Rao, L. V. 4156, 4164, 4165, 4170  
 Rao, M. A. 4412  
 Rao, M. G. 1777, 2452, 8900, 11068  
 Rao, M. G. K. 5120  
 Rao, M. J. B. 3160  
 Rao, M. J. V. 2088  
 Rao, M. K. 1182, 8666  
 Rao, M. M. 5654  
 Rao, M. N. 8152  
 Rao, M. P. P. 9007  
 Rao, M. R. 9061  
 Rao, M. R. G. 6353  
 Rao, M. S. K. 9083  
 Rao, M. V. 1834, 3902, 3975, 6142, 6981, 8770, 9485, 9616  
 Rao, M. V. P. 7015, 9471  
 Rao, M. V. S. 6115  
 Rao, N. B. 10842  
 Rao, N. G. 9066  
 Rao, N. G. P. 2091, 3797, 3798, 4138, 7133, 8877, 9643  
 Rao, N. N. 926  
 Rao, P. G. 2405  
 Rao, P. H. 1227  
 Rao, P. K. A. 9887, 10821  
 Rao, P. N. 5150  
 Rao, P. S. 8362  
 Rao, P. V. 7160  
 Rao, P. V. P. 10785  
 Rao, R. D. V. J. P. 5404, 11064  
 Rao, S. 8271  
 Rao, S. L. N. 8960  
 Rao, S. P. 2603  
 Rao, T. N. 2349  
 Rao, T. S. 1122, 1398, 3144, 5316, 6367, 6368, 6458, 9061, 9083, 10828, 10829  
 Rao, T. V. 3298  
 Rao, T. V. S. R. M. 4164  
 Rao, U. M. B. 9608  
 Rao, U. P. 8923, 9660, 10611  
 Rao, V. A. 7129  
 Rao, V. R. 6454, 7497  
 Rao, V. S. P. 5849  
 Rao, Y. H. 6746  
 Rao, Y. S. 1237  
 Rapela, M. A. 9577  
 Raper, J. 9345  
 Rapoport, E. G. 6619  
 Rapp, A. 4570, 10936  
 Rapp, K. 1471  
 Rarok, V. A. 408  
 Rascio, N. 8028  
 Rasco, E. T. 7327  
 Rasco, E. T., Jr. 9779  
 Rashal', I. D. 10633  
 Rasheed Ahmad 8704  
 Rasheed Qureshi, A. 5831  
 Rashid, A. 660, 3427, 4790, 6413, 8566, 10784  
 Rashidov, N. M. 7092  
 Rashkovan, E. A. 125, 134  
 Rashova, G. N. 4885  
 Rasi-zade, G. M. 4567  
 Rasmussen, J. A. 967  
 Rasmusson, D. C. 4085, 4104  
 Rasnake, M. 5356  
 Raspopova, G. I. 7584  
 Rassvetaeva, E. G. 10874  
 Rast, A. T. B. 2656  
 Rastogi, K. B. 9223  
 Rastorguev, S. L. 706, 7562  
 Rasulova, M. R. 9766  
 Ratan Kumar Das 7527  
 Ratanadilok, N. 338  
 Ratanadilok, N. K. 338  
 Rathinam, A. 9682  
 Rathinam, M. 10121, 10122  
 Rathjen, A. J. 8771  
 Rathore, J. S. 6831  
 Rathore, K. S. 336  
 Rathore, R. K. S. 8668  
 Rathore, Y. S. 3155, 5954  
 Ratnasuriya, G. B. 10799  
 Rattan, R. S. 9282  
 Raupp, A. A. A. 10568  
 Rauscher, H. M. 7640  
 Rauser, W. E. 7240  
 Raut, B. T. 9328  
 Raut, J. G. 637  
 Raut, K. G. 9081  
 Raut, R. N. 1125, 8304  
 Raut, U. M. 2328  
 Ravantti, S. 10671  
 Ravi, P. C. 9661  
 Ravindran, S. 1422  
 Ravishankar, H. 3704  
 Ravkin, A. S. 2524, 4551, 5472  
 Rawal, K. M. 6734  
 Rawal, R. D. 7789, 7790  
 Rawat, G. S. 4923  
 Rawlings, J. O. 6250  
 Rawson, H. M. 4699  
 Rawson, J. R. Y. 5064  
 Ray, D. T. 5290  
 Ray, J. H. 9352  
 Ray, L. L. 9821  
 Ray, M. B. 2157  
 Rayburn, A. L., III 6015, 6016  
 Raychaudhuri, N. C. B. 2161, 8895, 9698  
 Raymundo, A. D. 8021  
 Raymundo, S. A. 2168, 3174, 8161, 8202, 8220, 9654  
 Raynal, G. 8955  
 Razak, H. A. H. A. 5696  
 Razdan, M. K. 7817  
 Rea, G. L. 2015  
 Read, J. C. 5198  
 Read, J. W. 6229, 6261  
 Read, R. W. 3582  
 Reader, S. M. 10295  
 Reayat Khan 1561, 7599  
 Rebois, R. V. 6334  
 Recupero, S. 6477  
 Redalen, G. 4508, 8423, 9927  
 Reddi, M. V. 9078  
 Reddi, T. V. V. S. 1214, 2126, 4198  
 Reddi, V. R. 1214, 2126, 3144  
 Reddick, J. E. 1166, 10547  
 Reddy, B. G. S. 328, 1777, 2074, 2452, 2599  
 Reddy, C. N. 330  
 Reddy, C. S. 4138, 4148, 6125  
 Reddy, D. D. R. 7723, 7724  
 Reddy, G. M. 375, 1215, 1227, 6165  
 Reddy, G. S. T. 9875  
 Reddy, I. P. 11064  
 Reddy, L. V. 10464  
 Reddy, M. S. S. 1407, 1834, 3975, 4901, 6981, 9485  
 Reddy, M. V. 3795, 11075  
 Reddy, N. 2116, 2120  
 Reddy, N. P. 5654  
 Reddy, P. N. 718  
 Reddy, P. P. 4767  
 Reddy, P. R. 9694  
 Reddy, P. S. 9068, 9078, 10820  
 Reddy, R. P. 3797, 3798  
 Reddy, S. C. V. 650  
 Reddy, S. R. 4154  
 Reddy, T. A. 1215  
 Reddy, T. N. 9068  
 Reddy, T. S. N. 1385, 7467  
 Redon, C. 10342  
 Reeck, G. R. 3057  
 Reed, A. J. 3041, 4974, 4975  
 Reed, S. M. 591, 6418  
 Reed, W. 3794  
 Rees, H. 422, 5722, 9393  
 Rees, R. G. 2879, 5843  
 Reeves, A. F. 516, 4341, 10684  
 Reeves, H. E. 5803  
 Reeves, S. A., Jr. 8878  
 Regazzi, A. J. 5995  
 Reger, B. J. 7511  
 Reggiani, R. 1950, 6048  
 Reginatto, M. da P. V. 8888  
 Rehfeldt, G. E. 818, 5543, 8483, 9191  
 Rehm, S. 9020  
 Rehman, A. 5830  
 Reicosky, D. A. 6030, 6032, 6764, 10138, 11151  
 Reid, D. A. 1158, 3089



- Reid, W. W. 611  
 Reiffman, V. G. 7779  
 Reifschneider, F. J. B. 10500  
 Reilly, J. J. 3442  
 Reinbergs, E. 6073, 10397  
 Reinert, J. 3427, 4440, 6413, 10784  
 Reinert, R. A. 4653  
 Reinhold, M. 10383  
 Reis, E. M. 2968  
 Reis, M. S. 6752, 6768, 7760, 8605  
 Reisch, B. 2214, 6246, 10663  
 Reisenauer, P. E. 8833  
 Reish, G. A. 10766  
 Reiss, E. 9933  
 Reissig, W. H. 3532  
 Reitan, L. 142  
 Reiter, B. G. 2975  
 Reiter, S. A. 482, 6338, 9781  
 Reitman, I. G. 10807  
 Rejda, J. M. 423  
 Rejman, S. 1476  
 Rekhmetulin, R. M. 8781  
 Remeslo, V. N. 100, 9430, 9477, 10305  
 Remison, S. U. 5666  
 Remizova, T. V. 2317  
 Rempel'g, Kh. Ya. 8685  
 Remoué, M. 10928  
 Remröd, J. 3641  
 Ren, Y. Y. 2612  
 Renard, J. L. 8371, 8420  
 Renard, M. 1402, 1403, 3454, 5573, 5576, 9055  
 Renganathan, C. R. 9908  
 Rensburg, G. D. J. van 1923  
 Renteria, G. 5035  
 Renu Joshi 722  
 Resende, J. L. M. 7429  
 Resh, L. P. 3132, 3134  
 Ressler, P. M. 7510, 7516, 9901  
 Retta, A. 67  
 Reuben, D. E. 6365  
 Reuther, G. 3614  
 Revazova, L. V. 3882  
 Revazyan, T. M. 4442  
 Revin, E. V. 8820, 8821  
 Revko, A. S. 2625  
 Rewari, R. B. 4709  
 Reyes Castañeda, P. 1942  
 Reyes-Discua, J. N. 2094  
 Reyes-Discua, N. 2094  
 Reyes, M. N. 9142  
 Reyes, R. C. 2167  
 Reynolds, J. 5728  
 Reynolds, T. L. 661  
 Rezaul Karim, A. N. M. 9712  
 Rezende, J. A. M. 2012, 10504, 10759  
 Rezk, M. A. 4392  
 Reznik, H. 1315  
 Reznikova, L. G. 5878  
 Reznikova, S. A. 992, 5715, 6823  
 Rheeders, E. 3574  
 Rheenen, H. A. van 2409, 4685, 7743, 7744, 8588  
 Rhoades, M. M. 3040, 4960, 10429, 10430, 10456  
 Rhodes, A. M. 7077, 11020  
 Rhodes, A. P. 90, 4054, 6096  
 Rhodes, B. B. 6640, 11013, 11014  
 Rhodes, I. 7249, 8223  
 Rhodes, J. W. 640, 641  
 Riaz Ahmad 6891  
 Ribeiro, A. S. 3197, 8889, 8891, 8892, 8894, 9653  
 Ribeiro, M. J. del P. 8587  
 Ribeiro, P. de A. 10857  
 Ribeiro, R. de L. D. 3866  
 Ricaud, C. 8321  
 Ricci, P. 9909  
 Rice, E. R. 5317  
 Rice, T. B. 6040  
 Ricelli, M. 7178  
 Rich, S. 4075  
 Richard, C. 6253  
 Richard, C. A. 565  
 Richard, E. P., Jr. 3198  
 Richards, K. W. 6265  
 Richards, R. A. 8363, 9054, 10331  
 Richards, T. L. 3747, 3749  
 Richardson, D. E. 6288  
 Richardson, W. L. 3217, 3218, 10628  
 Richens, R. H. 5719  
 Richharia, R. H. 5115  
 Richter, E. 3086  
 Richter, K. 2952  
 Rick, C. M. 898, 912, 2636, 4642  
 Ridings, H. I. 6897  
 Ridland, P. M. 5225, 8956  
 Rieger, R. 8103, 8663, 9287, 9603, 10097, 10198, 10229, 11081  
 Rieksta, D. A. 651  
 Riemann, K.-H. 3013, 4001, 7012  
 Riemenschneider, D. E. 1514  
 Riepma, P. 3700  
 Rigaud, J. 11082  
 Rigg, T. J. 6080  
 Riggs, R. D. 11134  
 Rigin, B. V. 7956  
 Rijo, L. 5361, 6427  
 Riley, G. J. P. 4051  
 Riley, J. 4416  
 Riley, R. 9389, 10270  
 Riley, R. D. 6238  
 Rilishkis, A. 6531  
 Ríman, L. 1815, 5949, 5953  
 Rimann, L. 5949, 5953  
 Rimmeri, P. 245  
 Rimon, D. 8324  
 Rimpau, J. 2857, 4877  
 Rina Sett 1355  
 Rincker, C. M. 5156  
 Rincón S., O. 7738  
 Rines, H. W. 4823, 4925, 4926  
 Ring, A. H. 10580  
 Ring, A. S. 1189, 7151  
 Ring, S. 1189  
 Ringlund, K. 3891  
 Rink, G. 803  
 Rinkenberger, G. G. 3079  
 Rinne, K. 10672  
 Riordan, T. P. 5167, 6237, 8234  
 Rios, G. P. 4064  
 Ripa, M. 8718  
 Risk, G. N. 6420  
 Rissler, J. F. 2246  
 Ristanović, D. 3052  
 Rисуño, M. C. 6783, 7785  
 Ritchie, J. T. 259  
 Ritter, C. M. 2555  
 Ritter, R. 5075  
 Rivalta, L. 3511, 6477  
 Rivas R., N. 4562  
 Rivera C., G. 6727  
 Rivera G., A. 256  
 Rivero Vergara, L. del 10887  
 Rives, M. 1493  
 Rivier, L. 4048  
 Rivoira, G. 2684  
 Rizk, T. Y. 5373  
 Roane, C. W. 1142, 1143, 1144, 1145, 3774  
 Roark, B. 3365, 5301, 6341  
 Roath, W. W. 6444, 6446  
 Röbbelen, G. 860, 861, 1019, 1675, 2404, 4321, 4465, 4491, 7114  
 Robbins, M. L. 851, 5244, 7672  
 Robelin, M. 1721  
 Roberts, J. H. 9173  
 Roberts, D. D. 5367  
 Roberts, E. H. 5710, 5711, 8678  
 Roberts, I. 2607  
 Roberts, I. N. 6615  
 Roberts, M. 1150  
 Robertson, D. S. 4014, 4016, 4957, 4958, 4959, 4967, 10447, 10448, 10510  
 Robertson, G. A. 6804  
 Robertson, J. A. 6601  
 Robeson, D. J. 2663  
 Robinson, D. P. 5264  
 Robinson, H. G. 1799  
 Robinson, J. F. 9593  
 Robinson, J. G. 4160  
 Robinson, R. A. 1691  
 Robinson, R. G. 5062, 5670, 6447  
 Robinson, R. W. 883, 2620, 4624, 4631, 5599, 6658, 11018, 11019, 11029  
 Robinson, S. H. 4394  
 Robinson, W. A. 766  
 Robson, M. J. 8224  
 Roca, M. R. 4330  
 Roca, W. M. 2353, 2356, 4330  
 Rockwood, D. L. 8482, 9194  
 Rod, J. 1264, 2211, 2213  
 Roderick, H. W. 5059  
 Rodin, V. F. 9884  
 Rodina, N. A. 10554  
 Rodionov, V. K. 7705  
 Rodionova, Z. V. 3329, 5247  
 Rodrigues, C. D., Jr. 6427  
 Rodrigues, C. E. M. 8893  
 Rodrigues Filho, F. S. de O. 10705  
 Rodrigues Júnior, C. J. 5361  
 Rodrigues, M. L. 6422  
 Rodriguez A., J. 10899  
 Rodríguez Amieva, P. J. 3867  
 Rodriguez-Ardon, R. 6065  
 Rodríguez Bore, F. J. 9472  
 Rodríguez, C. 10800  
 Rodríguez-Candela, M. 4563  
 Rodríguez de Ciano, S. 3763  
 Rodríguez-García, M. I. 6783  
 Rodríguez, J. A. 762, 3241  
 Rodríguez-Kábana, R. 7777  
 Rodríguez, L. 9404  
 Rodríguez Nodals, A. 9798  
 Rodríguez, P. 4558  
 Rodríguez, R. 10244  
 Rodríguez, R. A. 4188  
 Roelants, W. 1366  
 Roelfs, A. P. 1833, 1869, 3999, 4904, 4905, 10387, 10555  
 Roelofs, W. L. 3532  
 Roelofsen, H. J. 1657  
 Roer, L. 1309, 6325  
 Roesnow, D. T. 7176  
 Rogalska, S. 2997  
 Rogdaki-Papadaki, C. 9589, 9590  
 Rogers, C. E. 10825  
 Rogers, D. J. 6555  
 Rogers-Lewis, D. S. 4348  
 Rogers, R. R. 5015  
 Roggen, H. 2615, 3686, 5571  
 Rogler, G. A. 3244  
 Rognon, F. 7571, 7574  
 Rogova, N. T. 10980  
 Rogozhina, E. A. 2961  
 Rogozhina, E. M. 10390  
 Rogozińska, J. 1297  
 Rohr, R. 9858  
 Rojc, M. 1123  
 Rokba, A. M. 9958  
 Roland, M. 10092  
 Rolfe, B. G. 463  
 Rollier, M. 960  
 Rollwitz, W. 934, 3237  
 Rolston, H. 8299  
 Rom, R. C. 3561  
 Romagosa, I. 6382  
 Romanauskas, V. 789  
 Romanchenko, V. V. 1993  
 Romanenko, L. G. 10833  
 Romania, Institutul de cercetări pentru legumicultură și floricultură 6465, 6466  
 Romania, Trustul economic de producție pentru pomicultură 6499  
 Romania, Trustul economic de producție pentru viticultură și vinificație 6546  
 Romanova, N. P. 706, 7562, 10852  
 Romanovets, E. S. 687  
 Romantsova, A. A. 9210  
 Rome, D. A. 5998  
 Römer, D. 8327  
 Romero, M. J. 3171  
 Rommeiss, S. 210  
 Ronald, W. G. 4581  
 Ronchi, V. N. 4282  
 Ronduen, A. 7217  
 Rone, V. 6567  
 Rønsen, K. 483  
 Rood, S. B. 6024, 7057, 8024  
 Room Singh 10489  
 Roome, R. E. 6133  
 Rooney, L. W. 1188, 1189, 7138, 7151, 10482, 10580  
 Roos, E. E. 10230  
 Roque Díaz, P. 6375  
 Roquib, M. A. 11127  
 Rosa, A. P. M. 7952  
 Rosalem, C. A. 7149  
 Rosas, J. C. 9295, 10109  
 Rosas S., C. 3397  
 Rosati, P. 3508, 3511, 8429  
 Rose, I. A. 6775  
 Roselli, G. 646, 2787, 3609, 3826, 5748  
 Rosen, A. 9272  
 Rosenkova, V. E. 5891, 5951  
 Rosenow, D. T. 7150, 7151, 10567  
 Rosenthal, T. R. F. 3400  
 Rosero, M. J. 353, 6186  
 Rosic, K. 3067  
 Rosichan, J. 2031  
 Rosielle, A. A. 5832, 5920  
 Ross, E. O. 977  
 Ross, H. 2269  
 Ross, J. G. 3227, 5176  
 Ross, M. A. 3079  
 Ross, W. M. 3142, 4144, 6121, 7147, 8140  
 Rosser, W. 8945  
 Rossetto, C. J. 2012, 10759, 11175  
 Rossetto, D. 11175  
 Rossiter, R. C. 6266, 6267  
 Rossnagel, B. G. 4095, 4096  
 Röstel, H.-J. 4419, 7424, 10763  
 Rostochkov, L. N. 709  
 Rostovtsev, S. A. 8487  
 Rosvall-Åhnebrink, G. 10953  
 Roszko, A. 11098  
 Rotar', A. I. 8821, 9578  
 Rotaru, G. I. 10877  
 Roth, N. J. L. 10547  
 Rothman, P. G. 4925, 4926  
 Roughgarden, J. 5753  
 Roughley, R. J. 6719, 8609  
 Roulund, H. 10040  
 Roupakias, D. G. 1108, 1888, 1945, 1946, 3035, 8035  
 Rouquette, F. M., Jr. 7291  
 Rouquié, P. 10928  
 Rouse, D. I. 4829, 4898  
 Rouse, R. E. 8416  
 Roussel, N. 1366  
 Rousselle, P. 1402, 3458, 5572, 5573  
 Roussier, R. 372  
 Rousset, M. 993, 2945  
 Routley, D. G. 9594  
 Rovenská, B. 1127  
 Rowberry, R. G. 6290, 6293  
 Rowe, D. E. 5768  
 Rowe, P. R. 6305  
 Rowe, R. C. 4605, 11062  
 Rowe, R. W. 6487  
 Rowell, J. B. 1868  
 Rowland, G. G. 4397, 6693, 6694  
 Roy, A. C. 8190  
 Roy, J. K. 5144, 5146  
 Roy, N. N. 9056  
 Roy, P. N. 2750  
 Roy, R. P. 2633  
 Roy, S. K. B. 2143, 5110, 9684  
 Roy, T. K. 2048  
 Royer, M. H. 4069, 8062  
 Rozenfeld, J. 3073, 3075  
 Rozhanets, G. M. 7621, 9161  
 Rozhko, V. G. 577  
 Rozhkov, M. I. 5397  
 Rozhkova, V. T. 9069  
 Rozmyslova, A. G. 9986  
 Rubens, T. G. 8572  
 Rubenstein, I. 268, 1943



- Rubenthaler, G. L. 7885, 7950  
 Rubio Gonzáles, A. M. 6375  
 Rubis, D. D. 8608  
 Rucatti, E. G. 352  
 Rudas, A. P. 4640  
 Rüdenberg, L. 4496  
 Rudenko, M. I. 5868  
 Rudloff, E. 6221  
 Rudnev, N. V. 5175  
 Rudolph, K. 3738, 4688, 5661, 6723  
 Rudzite, L. T. 3707  
 Ruebenbauer, T. 1914, 4943, 10419  
 Rueda, J. L. 7325  
 Ruelke, O. C. 2207, 2230  
 Ruetz, W. 7653  
 Rufty, R. C. 5922  
 Ruhde, R. W. 6302  
 Ruikar, S. K. 9486  
 Ruiter, A. C. de 883  
 Rulinskaya, N. S. 2226, 3296  
 Rumansyah Icin 5101  
 Rumbaugh, M. D. 6248  
 Runge, H. 3694  
 Rupert, E. A. 6265, 10670  
 Rupp, M. S. 10652  
 Ruppel, E. G. 574, 3393  
 Rus, F. 9789  
 Rush, D. W. 6875  
 Rush, M. C. 4221, 5141, 6178  
 Rushdi, M. K. 8726  
 Rusin, N. S. 2568, 2569, 8462, 10027  
 Rusinova, N. G. 2296  
 Ruśniak, L. 6098  
 Russell, G. E. 5795, 5796, 6983  
 Russell, W. A. 1917, 5015, 8824, 8825, 9556, 10470  
 Russo, F. 5454  
 Russo, S. 3185  
 Ruszkowski, M. 8925  
 Rutar, V. 9411  
 Rute, T. N. 885, 6643  
 Rutger, J. N. 1219, 4189, 4233, 5124, 5127, 7220  
 Rutkovskii, I. V. 9181  
 Ruttencutter, G. 7331  
 Rutto, J. K. 7147  
 Rutts, R. I. 9457  
 Ruwali, K. N. 1747  
 Ruyack, J. 1349  
 Ruys-Catlender, C. M. 5530  
 Ryabchuk, V. K. 213  
 Ryabinina, M. I. 1067  
 Ryadchikov, V. G. 307, 4056, 4879  
 Ryadnova, I. M. 5254  
 Ryan, C. C. 5324  
 Ryan, S. A. 9054  
 Ryazantseva, T. P. 4714  
 Rybakova, M. I. 2860, 4005  
 Rybal'chenko, N. I. 7544  
 Rybczyński, J. 7995  
 Rychkova, A. I. 4022  
 Rychtárik, J. 2052, 3003, 3115  
 Rykhsikhodzhaev, T. 7392  
 Rykova, R. P. 557  
 Ryliškis, A. 6531  
 Rylov, G. P. 3540  
 Rymal, K. S. 8592  
 Ryseva, T. A. 556  
 Ryskal', G. V. 9453  
 Rystakov, V. S. 5285, 9811  
 Rytko, G. T. 9587  
 Ryu, J. B. 7643  
 Ryu, J. D. 385  
 Ryugo, K. 8443  
 Ryzhkov, S. D. 2487, 10915  
 Rzaev, M. M. 4375  
 Rzaeva, M. A. 4375  
 Rzepka, D. 7992  
 Rzeźnik, Z. 9206  
 S., L. W. 970  
 Saadon, M. 9093  
 Saakian, T. A. 1419  
 Saakova, S. G. 4370  
 Saakyan, G. A. 1085, 10293  
 Saakyan, T. A. 1419  
 Saakyan, Zh. G. 3424  
 Saari, E. E. 3976  
 Saastamoinen, M. 308  
 Saavedra, E. 5407, 6599  
 Saban, B. A. 5508  
 Sabir Hussain Shah 6773  
 Sabir Hussain Shah, S. 2733, 6773  
 Sabovljević, R. 3033  
 Sabry I. El-Negoumy 3631  
 Saccardo, F. 6782, 8336  
 Saccomani, M. 4034  
 Sachan, G. C. 3155, 5954  
 Sachan, J. K. S. 8800, 8807  
 Sachanski, S. 11182  
 Sachdeva, S. K. 421, 10629  
 Sacher, R. F. 7703, 7713  
 Sachs, M. M. 3050  
 Sackewitz, H. 6380, 7419  
 Sacks, J. M. 5401, 10366  
 Sackston, W. E. 6452  
 Sacristán, M. D. 5577, 10810, 11042  
 Sadakathulla, S. 4179, 4182, 4184  
 Sadana, G. L. 722  
 Sadanandan, N. 9310  
 Sadaqat Mehdi 8997  
 Sadasivaiah, R. S. 2203, 2204, 9741, 9742  
 Sadehdel-Moghaddam, M. 10506  
 Sadeka Arangzeb 7400  
 Sadeque U. Ahmed 9057, 9880  
 Sadowski, J. 4942  
 Sadykhov, A. M. 1068  
 Sadykhova, L. 10710  
 Sadykin, A. V. 923, 1560  
 Sadykkhodzhaeva, L. A. 10711  
 Sadykov, A. M. 169, 1068  
 Sadykov, P. 1342  
 Sadykov, S. S. 2294  
 Saeed Iqbal Khan, M. 7367, 7368, 7369  
 Saeed, M. 6438  
 Saettler, A. W. 1574, 2695, 2696  
 Safaya, N. M. 8044  
 Safiyazov, Zh. 3370  
 Safonov, V. I. 9797  
 Safonova, M. P. 9797  
 Safronova, L. I. 894  
 Sagalbekov, U. M. 4303, 5235  
 Sagar, P. 2705  
 Sage, G. C. M. 4859, 10315  
 Saggat, S. 9459  
 Sagidullina, A. 5284  
 Saha, A. 3381  
 Saha, A. K. 8179, 8190  
 Saha, S. N. 5376  
 Sahai, S. 9306  
 Sahai, V. N. 5090, 5095, 8194  
 Sahakian, G. G. 3424  
 Sahakyan, G. A. 1085  
 Sahakyan, T. A. 1419  
 Sahakyan, Zh. G. 3424  
 Sahar, N. 4535  
 Saharan, G. S. 9016, 9320  
 Sahasrabudhe, V. B. 2715  
 Šahib, K. H. 4156, 4165, 4170  
 Šahin, M. 11054  
 Saho, H. 8490  
 Sahu, G. P. 2140, 9687  
 Sahu, J. P. 11073  
 Sahu, R. K. 9699  
 Sahu, S. P. 5095  
 Sahu, V. N. 9699  
 Sai Krishna, T. 8216, 9663, 9706  
 Sai Kumar, R. 4164  
 Saïdaliev, Kh. 7392  
 Saif-ur-Rehman 3717, 5812, 5828, 6651  
 Saifur Rehman 3717, 5812, 5828, 6651  
 Saighe, B. 2994  
 Sain Dass 324  
 Saini, H. C. 10806  
 Saini, M. L. 9763  
 Saini, R. S. 2066, 2067  
 Saini, S. S. 1197, 1199, 2151, 2158, 4205, 6726, 8163, 8902, 9282  
 Saint-Clair, P. M. 1183, 1192  
 St. Louis, D. G. 73  
 Saint-Macary, H. 10148  
 St.-Pierre, C. A. 4162, 4838, 6068, 6069, 6070, 7082  
 Saito, H. 7436  
 Saito, K. 4211, 8905  
 Saito, M. 7185  
 Saitov, M. 4378  
 Sajjan, G. C. 5390  
 Saka, H. 1585  
 Sakaguchi, S. 383, 384, 1232, 5138  
 Sakamoto, S. 521, 8158, 8246  
 Sakara, N. A. 4342, 9781  
 Sakharova, T. P. 2037  
 Säkö, J. 10904  
 Sakshaug, K. 5424  
 Salak-Warzecha, K. 4256  
 Salako, E. A. 5931, 7962  
 Salamini, F. 1032, 1034, 1950, 1994, 5994, 5997, 6048, 6709, 7061, 8029, 10436, 10469  
 Salatino, A. 2771  
 Salazar Gómez, J. M. 7963  
 Saleh, M. A. 2407  
 Salehi, M. S. M. 2104  
 Salem, M. S. 2407  
 Salem, S. A. 3062  
 Salemink, C. A. 10832  
 Salesses, G. 1435  
 Salfetnikov, A. A. 1288  
 Salgado, A. L. de B. 10744, 10746  
 Salgado, C. L. 4064  
 Salgado Sosa, E. 9009, 10727  
 Salim Hanounik 6699  
 Salima Mezghani 7492  
 Salinas-Gonzalez, J. 8279  
 Salinas, J. 5852  
 Salinas, J. G. 4815  
 Salisbury, P. A. 2801  
 Sallai, G. 1877  
 Sallé, G. 8394  
 Salmira, I. S. 7987  
 Salmon, D. F. 1884  
 Saf'nikova, T. V. 7094  
 Salo, M.-L. 5372  
 Salo, Y. 9615  
 Salomonsson, A.-C. 7106  
 Saltykov, I. I. 2649  
 Saltykova, N. N. 10304  
 Salumu-Shabani 10496  
 Salunke, M. R. 2439  
 Salvioli, R. A. 5204, 5205, 5656  
 Samadashvili, Ts. Sh. 1824  
 Samara, N. E. 4885  
 Sambandam, C. N. 11009, 11010, 11038  
 Samborski, D. J. 1858, 5933, 6884  
 Sambucetti, M. E. 1592  
 Samet, J. S. 5794  
 Saminadin, G. 1480  
 Samir El-Sabae Ahmed 3005  
 Samir Zaki Ali El-Agamy 10917  
 Sammons, D. J. 4821  
 Samoïlova, V. A. 904  
 Samoladas, T. Kh. 6476, 9971  
 Samolo, B. N. 2708  
 Samoshkin, E. N. 7637, 9174  
 Sampaio, V. R. 10888, 10889  
 Sampathkumar, R. 2621  
 Sampson, D. R. 1799  
 Samra, A. S. 4892  
 Samson, R. F. 8942  
 Samson, R. G. 3034  
 Samsuddin, Z. 2460, 3492  
 Samuel, C. J. A. 814  
 Samuelson, T. J. 6487  
 Samvelyan, G. E. 1457  
 San Noeum, L. H. 2043  
 Sanabria, G. L. R. de 5265  
 Sanada, T. 9930, 9931  
 Sanahuja, J. C. 1592  
 Sanbuichi, T. 971, 11163  
 Sanchez, C. D. 716  
 Sánchez de Luque, C. 8421  
 Sánchez, M. 5813  
 Sánchez-Monge Laguna, E. 1774  
 Sand, S. A. 5340, 5348, 6411  
 Sandanam, S. 5359  
 Sanderlin, R. 5507  
 Sanderlin, R. S. 10020  
 Sanders, D. C. 4363  
 Sanders, J. H. 8583  
 Sanders, M. E. 5076  
 Sanders, T. H. 6459  
 Sandfær, J. 4092, 8110  
 Sandha, G. S. 1881, 1893, 1895  
 Sandhu, B. S. 549, 2435, 9899  
 Sandhu, G. R. 6774  
 Sandhu Harnek Singh 7969  
 Sandhu, J. S. 524  
 Sandhu, K. S. 8967  
 Sandhu, T. S. 8594, 10182, 11117  
 Sands, D. C. 3211, 10359  
 Sandukhadze, B. I. 2961  
 Sanford, J. C. 6298  
 Sanford, L. L. 6309, 6336, 7359, 7360  
 Sangaré, A. 7574  
 Sanghavi, K. U. 6538  
 Sangwan-Norree, B. S. 9350  
 Sangwan, R. S. 1903, 6371  
 Sanikidze, V. I. 9870  
 Sanjaya Rajaram 10318  
 Sankaran, S. 4135  
 Sankin, L. S. 10850  
 Sankina, A. S. 686, 5426, 10916  
 Sankpal, V. B. 5143, 9710  
 Sanne Gowda, S. 2169, 9661  
 Sannegowda, S. 9661  
 Sano, J. 3913  
 Sano, Y. 356, 2843, 2845, 2846, 2848, 3178, 6146, 7205  
 Sansavini, S. 1433, 8432  
 Santa, M. 1272  
 Santacruz Ramos, F. 3731  
 Santamour, F. S., Jr. 6493  
 Santana, B. F. 7747  
 Sant'Anna, R. 266, 267  
 Santha, I. M. 5041  
 Santhakumari, S. 9305, 10117  
 Santiesteban, J. 7474  
 Santo, G. S. 3276  
 Santos, A. V. P. dos 2220  
 Santos, D. 3864  
 Santos, D. dos 3711  
 Santos, D. P. 6705  
 Santos Filho, B. G. dos 10568  
 Santos Filho, H. P. 6729  
 Santos, H. P. dos 2968  
 Santos, J. P. 5014, 10505  
 Santos, J. P. O. 7751  
 Sañudo, A. 4316, 5240  
 Sanyasappa Rao, T. 3144  
 Sapin, P. 1050  
 Sapistein, H. 10340  
 Sappenfield, W. P. 5281  
 Sapra, V. T. 214, 1880, 1890, 5945, 6999, 7869  
 Saradamani, S. 3144  
 Sarala, A. K. 6165  
 Saran, S. 5090, 5095, 8194  
 Sarapul'tsev, B. I. 77  
 Sarashima, M. 856, 3678  
 Sarasola, M. A. R. de 6561  
 Saraswathi, V. 5068  
 Saraswathy, P. 6736, 6743  
 Sarca, V. 2080  
 Sardhambal, K. V. 1233  
 Sardzhveladze, G. P. 9963, 10217  
 Sardzhveladze, L. F. 9870  
 Sareen, P. K. 3112, 10000  
 Sarfatti, G. 3715, 5440  
 Sargysan, H. A. 1085  
 Sari-el-Deen, S. A. 7502  
 Sari-Gorla, M. 7050  
 Sarić, M. 3392  
 Sarić, M. R. 4973  
 Sarić, O. 7135  
 Sarić, Z. 3767  
 Sarigabutr, A. 1208  
 Sarin, K. 2985  
 Sariyar, G. -1390  
 Sarkar, K. R. 1966, 8800, 8807  
 Sarkar, L. 662



- Sarkar, R. 8368  
Sarkar, S. K. 6242  
Sarkarung, S. 1899  
Sarkisyan, A. A. 1085  
Sarkisyan, H. A. 1085  
Sarla Popli 11158  
Sarma, M. N. 4412  
Sarma, N. P. 10598  
Sarma, P. C. 2390  
Sarma, S. K. 5559  
Sarma, Y. N. 659  
Sarojak, D. J. 5211  
Sarpe, N. 9437  
Sartori, J. F. 4907  
Sarup, P. 7073  
Sarwar, H. A. K. 4163, 7158, 7159, 7162  
Sasaki, K. 7650  
Sasaki, T. 6154  
Sasakuma, T. 1775  
Sasidhar, V. K. 9310  
Sasidharan, N. K. 9305, 10117  
Sasmal, B. 10736  
Sastrapradja, S. 8627  
Sastri, D. C. 7414, 7512  
Sastrowijono, S. 3383  
Sastry, A. B. 10785  
Sastry, G. R. K. 1375  
Sastry, L. V. S. 2051, 9608  
Sastry, M. V. S. 4201  
Satarova, S. N. 709, 3553, 9948  
Satheesan, K. V. 10895  
Sathiamoorthy, M. R. 2440, 10831  
Sathyanarayanaiah, K. 9694  
Satish Kumar 5242  
Satjadipoera, S. 3670  
Sato, H. 1224, 2125, 4200, 6741, 9269  
Sato, K. 3187, 8490  
Sato, M. 7440, 9035, 10774, 10778  
Sato, S. 3658, 5169, 6209, 6210, 6211  
Sato, T. 6513, 7651  
Sato, Y. 10871  
Satoh, H. 2125, 6741  
Satsyperova, I. F. 9767  
Sattarov, A. 11051  
Sattarov, B. Kh. 3339  
Sattorov, A. 11051  
Satyan, B. A. 945  
Satyanarayana, A. 4697, 6800, 8632  
Satyanarayana, Y. 4412  
Satyavir 2336  
Sauer, D. B. 8063  
Săulescu, N. N. 1791, 5928, 6912, 9437  
Saunders, J. W. 7456  
Saunders, R. M. 1872  
Saupe, S. G. 11144  
Saurer, W. 1054, 2877, 2878, 3954, 10285  
Sauvion, A. 7279  
Savchenko, A. D. 8438  
Savchenko, A. I. 8475  
Savchenko, A. P. 2811, 7305  
Savchenko, G. N. 10390  
Savchenko, L. E. 877  
Savchenko, L. F. 11194  
Savchenko, V. K. 6862, 9353  
Savchuk, V. A. 9623  
Savchuk, V. M. 2941  
Savel'ev, N. I. 3526  
Savidan, I. 10556  
Savidan, Y. 320, 10556  
Savin, B. N. 4938  
Savithri, K. S. 987  
Savitskaya, V. A. 99, 10272  
Savitsky, H. 2350, 2351, 5328  
Savkin, N. L. 979  
Savov, P. 7879  
Savova, N. 8576  
Savvichev, K. I. 3294  
Savvina, N. V. 3587, 4544  
Sawaguchi, M. 8595  
Sawant, A. R. 4923  
Sawhney, R. N. 3978, 5845, 7965, 7966, 10381  
Sawicka, E. 1308  
Saxena, M. B. L. 3133  
Saxena, M. C. 3786, 4671, 11073, 11186  
Saxena, N. P. 3784, 6792  
Saxena, P. K. 8566  
Saxena, R. C. 399  
Saxena, V. K. 8060  
Sayanova, V. V. 11133, 11157  
Sazonova, L. N. 3106, 3108, 10522  
Sazonova, L. V. 9208, 10983  
Scalla, R. 614, 11082  
Scandalios, J. G. 1132, 1945, 1946, 1973, 1977, 1989, 3035, 3042, 4976, 4977, 4979, 4982, 4983, 7038, 8035  
Scantamburlo, J. L. 4127  
Scarascia-Mugnozza, G. T. 2664, 5644  
Scarlsbrick, D. H. 4686  
Scehovic, J. 7264  
Schaad, N. W. 3887  
Schaaf, D. M. 8938  
Schaefer, H. 9164  
Schaefer, G. A. 3588, 5470  
Schaeffer, A. 2550  
Schaeffer, G. W. 2376, 6151  
Schaeffer, J. R. 6234  
Schaff, D. A. 7727  
Schaffer, G. W. 8164  
Schaffer, H. E. 5981  
Schaffert, R. 8146  
Schalk, J. M. 5276  
Schall, R. A. 6057  
Schaller, A. 712  
Schaller, C. W. 3905  
Schapagah, W. T., Jr. 6750, 6756, 11145  
Scharen, A. L. 3964  
Scheerens, J. C. 1548  
Scheffer, J. J. C. 5530  
Scheffer, R. P. 5322  
Scheibert-Böhm, F. 10813  
Scheidt, M. 9792  
Schell, J. 1620, 2777  
Schenk, M. K. 5000, 9585  
Schertz, K. F. 3147, 3149, 4148, 6125, 10567  
Scheuring, J. 7151  
Scheuring, J. F. 7859  
Schiavo, F. lo 4282  
Schieder, O. 5252  
Schiller, J. M. 1413  
Schilling, E. E. 9070  
Schillinger, J. A. 1581  
Schiltz, P. 5354, 9858, 9859  
Schjelderup, I. 1243  
Schlaghecken, J. 3688, 6282  
Schlarbaum, S. E. 8493  
Schlechte, G. 10854  
Schlegel, R. 9513, 10533  
Schlösser, E. 2525, 4550, 10813  
Schmalzel, C. 4123  
Schmid, G. H. 9856, 9857  
Schmid, J. 4738  
Schmid, J. C. 9923  
Schmidle, A. 1455, 10880  
Schmidt 568  
Schmidt, D. 2235, 4266, 5187  
Schmidt, G. 568  
Schmidt, H. E. 934, 3237, 5544, 6600  
Schmidt, J. W. 6948, 8721, 10307  
Schmidt, S. L. 8302  
Schmidt-Stohn, G. 4940  
Schmidt-Vogt, H. 4591  
Schmidt, W. 7252, 8240  
Schmiechen, U. 8785  
Schmieder, W. 3927, 8860  
Schmiediche, P. E. 7333  
Schmitthenner, A. F. 7762, 7776, 11172  
Schmütz, W. 3863  
Schneeweis, T. J. 7517  
Schneider, F. 3614, 5719  
Schneider, W. 776  
Schnell, R. J. 4439  
Schöberlein, W. 5157  
Schöffling, H. 5494, 7608  
Scholz, H. 9729  
Schön, W. J. 1023  
Schönberger, H. 3957  
Schonhorst, M. H. 3254, 6243  
Schooler, A. B. 8837, 10521  
Schorcht, M. 7638  
Schrader, L. E. 5215, 7275, 7276  
Schrack, W. 7424  
Schreiber, H. 8838  
Schreier, P. 6536  
Schröder, S. 210  
Schroeder, V. 10997  
Schubert, A. M. 3478  
Schubert, I. 9287, 10096, 10097, 11081  
Schubert, L. 5544, 6600  
Schulte-Geers, C. 3725  
Schultz, G. A. 5551  
Schultze-Kraft, R. 2247  
Schulz, E. 4998  
Schulz, H. 8946  
Schulz-Schaeffer, J. 10195  
Schulze, L. L. 2722  
Schumann, U. 2265  
Schuster, M. F. 6360  
Schuster, M. L. 5652  
Schuster, W. 1123, 4808, 5774, 6431, 10227, 10809, 10813  
Schusztter, F. 9947  
Schütze, W. 5950  
Schvartzman, J. B. 2784, 3823, 9351, 10050  
Schwabe, W. W. 3390  
Schwammenhöferová-Stránská, K. 2617, 2618  
Schwank, O. 5238  
Schwartz, D. 1953, 6027, 10428, 10479  
Schwartz, H. F. 5660, 8583  
Schwarz, Z. 4017  
Schwendiman, J. 1328, 7377, 7378, 9809  
Schwendiman, J. L. 5189  
Schwenk, F. W. 1582, 4744  
Schweppenhauser, M. A. 7635  
Scippa, G. 2672  
Scoles, G. J. 234, 9515  
Scott, G. E. 6065, 9574, 10422, 10494  
Scott, J. E. 1209  
Scott, J. W. 4645, 6653  
Scott, K. J. 3527, 8698  
Scott, P. R. 5817  
Scott, R. K. 8325  
Scott, T. W. 236  
Scowcroft, W. R. 8688, 9359, 10791  
Scriban, R. 8121  
Scriber, J. M. 5013  
Scriven, G. T. 5539  
Scumpu, N. 9293  
Scurrah, M. de 7352  
Scurtu, E. 9783  
Sdrovich, E. 5055  
Sdrovichné-Horváth, E. 5055  
Seal, A. G. 422  
Searle, P. G. E. 6811, 7759  
Sears, E. R. 6845, 7852, 9390, 10263, 10385  
Sears, R. G. 8850  
Sebastiani, E. 4210  
Sebaugh, J. L. 5174  
Šebečić, B. 7773  
Sebesta, J. 7010  
Sebők, A. 9947  
Sechkarev, B. I. 9748  
Sechnyak, L. K. 2217, 10399  
Sechnyak, Z. F. 8056  
Secor, G. A. 7315, 10689  
Secole, J. R. 7808  
Sedeh, H. G. 1894  
Sederoff, R. R. 4971, 9532  
Sediyama, C. S. 6729, 6752, 6768  
Sediyama, T. 3769, 4740, 5688, 6752, 6768, 7760, 8605  
Sedlovskii, A. I. 1212  
Sednina, G. V. 7940  
Sedov, E. N. 3533, 4519, 6491, 7540, 7549, 7550  
Sedyshcheva, G. A. 7549, 7550  
Seetharam, A. 989, 7489, 7490, 9067  
Seetharam, S. 9885  
Seetharaman, R. 3201, 8923  
Seetharami Reddi, T. V. V. 1214, 2126, 4198  
Sefa-Dedeh, S. 1575  
Segala, A. 5380, 5381  
Segala, M. 5380, 5381  
Segattini, G. 10933  
Segeta, V. 10364  
Segetya, V. 10364  
Segui, E. 4106  
Seguin, G. 10678  
Sehgal, K. L. 1809  
Seibles, T. S. 7330  
Seidewitz, L. 1301, 4324  
Seif, E. 4846  
Seif El-Din Fageer Mohamed 2652  
Seike, K. 681  
Seip, L. 8107  
Sekar, S. P. 1608  
Sekerková, M. 1849  
Sekhon, K. S. 8050, 8374  
Sekimura, K. 6392  
Sekizawa, K. 8158, 8198, 8211  
Seko, H. 4081, 5024, 5025  
Selim, A. K. A. 2302  
Sellers, K. M. 5839  
Selvaraj, Y. 8632, 9143  
Semakin, V. P. 7547, 7553  
Semal, J. 9414  
Semenikhina, L. V. 9808, 9832  
Semenov, A. L. 8252  
Semenov, O. G. 1067  
Semenov, S. 39  
Semenov, V. A. 6103  
Semenov, V. I. 134, 154  
Semenova, G. A. 64  
Semenova, M. V. 4874  
Semenova, N. Yu. 8008, 10414  
Semenova, T. V. 3017  
Semenow, S. 39  
Semenyutina, A. V. 3543  
Semerikhina, S. E. 6994, 6997  
Semerkov, L. F. 1500, 3624  
Semin, V. S. 10224  
Semochkina, L. G. 1495  
Semtner, P. J. 5356  
Semushina, L. A. 6101  
Semyarykhina, S. Ya. 6994  
Sen, D. 7863  
Sen', L. A. 7921  
Sen, S. 19, 1223, 9096, 10737  
Sen, S. K. 2402  
Sen-Sarma, P. K. 8473  
Sena-Gomes, A. R. 6470  
Senadhera, D. 395  
Senchukov, B. A. 2575  
Senf, G. 210, 5938, 6993  
Sengupta, K. 2750  
Sengupta, T. K. 662  
Senodov, V. P. 5303  
Senter, R. A. 8112  
Senthong, C. 8373  
Seo, A. 6265  
Seo, S. W. ~5130, 6155, 10608, 10609  
Seppänen, E. 10698  
Sequeira, L. 7336, 9791, 10694, 10695  
Serafimov, S. 8456  
Serboiu, L. 3516  
Serdyuk, L. S. 482  
Serdyuk, N. A. 2058  
Serdyuk, V. D. 2485  
Serebryakova, L. E. 2303  
Sereda, G. A. 6904, 7086  
Seregina, E. A. 7531  
Serezhkina, G. V. 3974  
Sergeev, A. V. 3087  
Sergeeva, A. T. 9609, 9610, 9620, 9621  
Sergeeva, E. A. 11201  
Sergeeva, K. D. 9984  
Sergeeva, N. V. 5474  
Sergeeva, S. I. 2963  
Sergiyenko, V. M. 3321  
Serikova, Z. N. 10649  
Serova, R. Ya. 8972  
Serova, Z. M. 7540  
Seshadri, A. R. 7118  
Seshadri, V. S. 11008  
Seshagiri Rao, C. 6177, 9702



- Seshu, D. V. 3168, 5097, 5100, 7219, 8215, 8216, 8922, 9705, 9706, 10619
- Sestrienka, A. 1261, 1262
- Setabutara, C. 5093, 5107
- Seth, J. N. 3598, 7687, 9926
- Seth, R. D. 5395
- Sethi, C. L. 7118
- Sethi, G. S. 1896
- Sethi, K. L. 2769, 2770, 8960, 9340, 11197
- Sethi, M. 5144
- Sethi, S. C. 3785, 3787
- Sethumadhavan, P. 2454
- Sethupathi Ramalingam 9908
- Sethuraj, M. R. 7529
- Setkova, L. G. 9938
- Sett, R. 1355, 1408
- Setterfield, G. 8338, 8339, 8340, 8343
- Setzer, R. W. 1616
- Sevast'yanov, V. I. 10541
- Ševčík, Z. 2196
- Severson, R. F. 2380, 6419
- Sewell, G. W. F. 4452
- Seyffert, U. 7260
- Sficas, A. G. 10771, 10772
- Sfikas, A. G. 10771, 10772
- Sgrulletta, D. 371, 2946
- Shaaban A. Khalil 4674
- Shaaban, A. M. 6420
- Shaaraway, M. A. 10822
- Shabana, R. 5385, 5961, 7006, 10822
- Shabanov, A. S. 1987
- Shablovskaya, M. I. 2513
- Shadley, J. 8023
- Shadley, J. D. 1947, 4980
- Shafi Chaudry, M. 2104
- Shafiq Ahmad 5825, 8998
- Shafirin, A. N. 7372
- Shah, A. H. 401, 8217
- Shah, G. M. 6794
- Shah, H. M. 7720
- Shahan, K. W. 3193
- Shahi, B. B. 7216, 8899
- Shahi, H. N. 2158, 8213
- Shahin, E. 6311
- Shahjahan, A. K. M. 4219
- Shahla, A. 2022, 2023, 5032, 7088, 8085
- Shaikh, M. A. Q. 7399, 8317, 8622
- Shail, J. W. 4624, 5599
- Shaifan, I. M. 3562
- Shaifuro, L. F. 770
- Shakaryan, Zh. O. 138, 1785
- Shakhanov, E. Sh. 4272
- Shakhmedova, G. S. 535, 3349
- Shakhov, A. A. 4372, 10452
- Shakoor, A. 1892, 5879, 5980, 8004
- Shalaby, A. A. 3061
- Shalaby, E. M. 8801
- Shalin, Yu. P. 10305, 10362
- Shalla, T. A. 2374
- Shamaeva, N. N. 1341
- Shamakova, L. I. 492, 9776
- Shambulingappa, K. G. 328
- Shamim A. Faruqi 2444
- Shamim Baksh 407, 7728, 8565
- Shamimul Hassan Usmani 6440
- Shamonina, V. P. 4885
- Shamsuddin, V. M. 2517
- Shamsul Alam 2174
- Shanahan, J. 6949
- Shanda, L. A. 9793
- Shandrikova, L. N. 1910
- Shandrykava, L. M. 1910
- Shaner, D. L. 1105
- Shaner, G. 3979, 5935, 5936
- Shaner, G. E. 4902
- Shangin-Berezovskii, G. N. 299
- Shank, D. B. 10474
- Shanker, R. U. 5640
- Shanks, C. H., Jr. 5481, 9148
- Shanmugasundaram, S. 957, 11156
- Shanmugavelu, K. G. 8516, 10988
- Shannon, J. C. 258
- Shannon, J. G. 8598
- Shantha Nagarajan 1843
- Shanthamma, C. 2200
- Shanthamurthy, K. B. 5740
- Shanthappa, M. B. 9636
- Shao, C. C. 3953, 4043
- Shao, F. M. 2698
- Shao, Q. Q. 3953, 4043
- Shapina, L. Ya. 1177
- Shapiro, I. D. 3868, 7070, 9418
- Shapoval, A. I. 3202
- Sharaf, K. M. H. 5044
- Sharashenidze, P. S. 7684
- Sharda, D. P. 10249
- Sharepo, T. I. 7013
- Sharma, A. 2985
- Sharma, A. K. 4696, 6675, 10681
- Sharma, B. 4759, 10184
- Sharma, B. R. 9834
- Sharma, D. C. 10307
- Sharma, D. D. 9628
- Sharma, D. K. 5460
- Sharma, D. R. 1340, 4660, 6953, 8370
- Sharma, G. C. 214, 6999
- Sharma, G. D. 10577
- Sharma, G. L. 829
- Sharma, G. R. 6371
- Sharma, G. S. 2885, 2954
- Sharma, H. C. 4852, 4861, 4867, 7905
- Sharma, H. L. 6373
- Sharma, H. R. 9696
- Sharma, J. C. 161, 6932, 10320, 11008
- Sharma, J. K. 4583
- Sharma, J. R. 2399, 7497, 9630
- Sharma, K. 1293
- Sharma, K. D. 1201
- Sharma, N. C. 1882
- Sharma, N. N. 8739
- Sharma, N. S. 336
- Sharma, R. A. 3384
- Sharma, R. N. 3065
- Sharma, R. P. 296
- Sharma, S. 2334
- Sharma, S. C. 1760, 2403, 3460, 8060
- Sharma, S. D. 701, 773, 2553, 3618, 9991
- Sharma, S. K. 2711, 2727, 4759, 7758, 8707, 8762, 8765, 8769, 9486, 10184
- Sharma, S. M. 3773, 10133
- Sharma, S. R. 3384
- Sharma, T. V. R. S. 10354
- Sharma, V. K. 6581, 8467, 8468
- Sharma, Y. P. 325, 2785, 7045
- Sharma, Y. R. 8766
- Sharmar, C. 10395
- Sharova, N. I. 6496, 7535
- Sharova, O. D. 9647
- Sharp, E. L. 3124, 5022, 10383
- Sharp, W. C. 6110
- Sharp, W. R. 838, 5360
- Sharpe, R. H. 4530, 4534
- Shashi Prabha 4678
- Shashidhar, H. E. 988, 9337
- Shastri, S. V. S. 8922
- Shatrova, L. G. 10068
- Shaver, T. N. 5309
- Shavishvili, K. N. 2554
- Shaw, D. V. 7856
- Shaw, L. N. 5399
- Shaw, P. E. 5466
- Shaw, R. H. 972
- Shaw, T. 15
- Shawe, F. J. 9044
- Shayakhmetov, I. F. 2949, 3925
- Shaykewich, C. F. 4822, 7870
- Shchapova, A. I. 220, 3983
- Shcharbakova, A. M. 6994
- Shcheglova, N. S. 2868
- Shchegoleva, M. I. 9243
- Shchelko, L. G. 5060
- Shchelokova, Z. I. 7041, 7049
- Shchepot'ev, F. L. 2485, 9169
- Shcherbak, V. S. 4050
- Shcherbakov, V. K. 14, 1006, 2561, 7926, 9415
- Shcherbakova, A. M. 6994, 6997
- Shcherbenev, G. Ya. 2473, 6486
- Shchukina, G. N. 5315
- Shearman, R. C. 5167, 8234, 8938
- Shebitchenko, V. Yu. 136, 8746
- Sheehy, J. E. 5222
- Sheela Ghosh 8194
- Sheen, S. J. 597, 598, 612, 5350, 8692
- Sheetz, R. H. 537
- Shegebaev, O. Sh. 2924
- Shehata, M. A. 11183
- Sheila, V. K. 7801
- Shek, G. O. 158
- Shekar Shetty, H. 8704
- Shekar, V. B. 4180
- Shekhar, V. C. 2641
- Shelabotin, G. P. 8424, 10852
- Sheldrick, R. D. 3060
- Sheleg, Z. I. 8841
- Shelke, V. G. 8435
- Shelud'ko, L. A. 8652
- Shemberg, M. A. 10030
- Shen, M. H. 4209
- Shen, M. X. 4209
- Shen, Q. F. 7443
- Shen, T. 4522
- Shen, T. H. 2114
- Shende, R. V. 9833
- Shende, V. L. 4180
- Sheng, C. C. 2932
- Sheng, J. Q. 2932
- Sheodhan Singh 8707, 8765, 8769
- Shepard, J. F. 6311, 9782, 10689
- Shepelev, V. V. 1148
- Shepherd, J. 9739
- Shepherd, K. W. 3379, 5851, 6923, 6924, 7907, 8315, 9390, 10265, 10531
- Sher Muhammad 8004
- Sheraliev, A. 4540
- Sherban, E. D. 10796
- Sheredeko, L. N. 2960
- Sheridan, W. F. 4032, 6007, 6008, 6010, 6037, 10450
- Sherman, W. B. 1441, 4530, 4534, 4552, 5433, 6533, 9936
- Sherhunova, V. I. 297, 8095, 8840
- Sherwood, R. T. 1693, 3229, 7267, 7271
- Sheshina, A. A. 9522
- Shestakova, A. P. 9483, 9489, 10271
- Shesteporov, A. A. 6192
- Shestopalova, N. G. 4474, 4783
- Shestopalova, R. B. 10333
- Shetty, H. S. 8704
- Shetty, K. P. V. 2514
- Shevchenko, A. A. 8752
- Shevchenko, A. M. 979, 7788
- Shevchenko, F. P. 10393
- Shevchenko, N. S. 1805, 4687
- Shevchenko, V. A. 1626, 3804
- Shevchenko, V. S. 6560
- Shevchuk, N. S. 6921
- Shevchuk, T. E. 8933
- Shevelev, N. E. 8546
- Shevelukha, V. S. 5799
- Shevernozhuk, R. G. 8463, 10022, 10946
- Shevkunova, V. S. 6530
- Shevtsov, A. N. 10649
- Shevtsov, V. M. 307, 7084
- Shewry, P. R. 1033, 4825, 5045, 7099
- Shi, J. G. 1794
- Shi, L. Y. 5280
- Shi, P. 9676
- Shibata, C. 8490
- Shibata, M. 7211
- Shidakov, R. S. 685
- Shien, Y. L. 9676
- Shifman, I. A. 918
- Shiffriss, C. 5401
- Shiffriss, O. 634
- Shiga, T. 857, 3304, 4457, 7667, 7668
- Shigenaga, S. 7916
- Shih, C. K. 1794
- Shih, L. Y. 5280
- Shih, S. F. 2335
- Shii, C. T. 6713
- Shikata, S. 1194, 4158
- Shikshnyan, T. Z. 425
- Shildrick, J. P. 7245, 7246, 8236
- Shilko, T. S. 231, 10416
- Shim, J. W. 2900
- Shimada, T. 1801, 7931
- Shimada, Y. 7464, 7465
- Shimamoto, K. 8811
- Shimamoto, Y. 8941
- Shimano, N. 5271
- Shimizu, J. Y. 1506
- Shimizu, N. 9732
- Shimura, E. 5118
- Shimura, I. 681
- Shimura, T. 5358
- Shin, D. C. 10154
- Shin, H. T. 350
- Shin, Y. 9666
- Shin, Y. U. 4512, 8392
- Shinde, B. N. 2551
- Shinde, M. D. 4149
- Shinde, N. N. 4483
- Shinde, P. H. 10357
- Shinde, S. H. 8139
- Shinde, V. K. 4140, 4760, 6817, 7141, 7142
- Shinde, Y. M. 2420
- Shindin, I. M. 3940
- Shine, J. 463
- Shingte, V. V. 10756
- Shinkarev, V. I. 9784, 9785
- Shinoda, H. 8158
- Shinohara, M. 9255
- Shinohara, T. 3420
- Shipe, E. R. 7291
- Shipota, S. E. 6485
- Shiraishi, T. 2829
- Shiriev, L. A. 10934
- Shirmulite, N. I. 9602
- Shirmin, V. K. 8462
- Shirokov, A. I. 3134, 6883, 9507
- Shirokova, E. P. 11157
- Shiryayev, A. I. 547
- Shish Pal Kadian 10406
- Shishikura, T. 681
- Shishko, A. M. 3371
- Shitova, I. P. 1790
- Shiu, Y. H. 4496
- Shivanna, K. R. 7414, 8669
- Shivashankar, G. 950, 988, 2761, 9302, 9337, 10113, 10114
- Shiyan, N. I. 9522, 10168
- Shkel', N. M. 3848, 6852
- Shkipsna, Ya. E. 10253
- Shkodenko, V. I. 10391
- Shkurenko, S. V. 7908
- Shkuropat, Z. Ya. 1411
- Shkvarnikov, P. K. 159, 5250
- Shmaraev, G. E. 9529, 9545, 9580
- Shmaraev, I. G. 7864
- Shmat'ko, I. G. 10365
- Shmidt, Yu. 8385
- Shnaider, T. M. 8685
- Shobha Rani, N. 3201
- Shobhane, M. R. 10712
- Shoda, M. 3420
- Shoemaker, R. C. 4970
- Shoferistov, E. P. 1449
- Shojla, G. S. 9283
- Shoji, T. 8490
- Shokhina, N. K. 6463
- Sholokhova, V. A. 7501
- Shome, A. 7403
- Shönherr, J. -3012
- Shopova, K. 6006
- Short, L. 5263
- Short, M. N. 5703



- Shorter, N. 9960  
 Shortess, D. K. 1984  
 Showalter, R. K. 5399  
 Shpota, V. I. 3463  
 Shripal Singh 4110  
 Shrivastava, M. P. 3796  
 Shrivastava, P. S. 2890, 9699  
 Shrivastava, S. K. 2173, 5139, 5147, 8901  
 Shroff, V. N. 2285  
 Shteinikova, V. I. 10035  
 Shtin, L. T. 780, 6548, 10007  
 Shtirbu, V. I. 8827  
 Shtyk, T. I. 6919  
 Shukene, Yu. Yu. 9602  
 Shukla, A. K. 9828  
 Shukla, B. C. 2173  
 Shukla, R. 7004  
 Shulembaeva, K. K. 135  
 Shulyar, V. M. 10807  
 Shulyndin, A. F. 1805, 4920  
 Shumaker, J. R. 6291  
 Shumaker, K. 5807  
 Shumaker, K. M. 2856  
 Shumeiko, A. F. 6945  
 Shumilin, A. P. 4728  
 Shumilova, G. I. 197  
 Shumny, V. K. 10165, 10226  
 Shumnyi, V. K. 5234, 10165, 10226  
 Shumskaya, T. E. 10418  
 Shunmugasundaram, S. 5320  
 Shurtleff, M. C. 7628  
 Shushakova, G. P. 7322, 7362  
 Shute, D. E. 7934  
 Shutova, Z. P. 9720  
 Shuvalov, Yu. N. 1014  
 Shvedov, G. G. 10544  
 Shvedova, O. K. 10365  
 Shvidchenko, V. K. 1700  
 Shyam, K. R. 8918, 9320  
 Shyam, R. 6992, 8779  
 Sibashvili, Z. G. 5504  
 Sibi, M. 2596  
 Sidak, V. 4106  
 Sidak, V. A. 7293  
 Sidarovich, Ya. A. 8251  
 Siddamallaiiah, H. S. 2159, 5120, 8900  
 Siddaramaiah, A. L. 1416, 2406, 2427  
 Siddiq, E. A. 376, 1198, 4204, 7189, 7206, 9693, 9695, 10601  
 Siddiqi, M. A. 7481  
 Siddiqi, M. Y. 10545  
 Siddique Sadiq, M. 1892  
 Siddiqui, A. W. 10784  
 Siddiqui, B. A. 11067, 11069  
 Siddiqui, K. A. 6113, 6890  
 Siddiqui, K. H. 7073  
 Siddiqui, K. M. 799, 6565  
 Siddiqui, N. H. 7599, 7600, 10847  
 Siddiqui, Q. H. 8996  
 Sidhu, A. S. 878, 8281, 8544, 8970, 9008, 11071, 11193  
 Sidhu, B. S. 226, 8782, 9459  
 Sidhu, G. S. 3721, 8206, 11056  
 Sidhu, J. S. 2068, 2069  
 Sidorenko, O. M. 11196  
 Sidorevich, N. G. 6326  
 Sidorov, A. I. 801  
 Sidorov, A. N. 274  
 Sidorova, A. M. 886  
 Sidorova, K. K. 10175  
 Sidorova, S. 10722  
 Sidorova, S. F. 7393  
 Sidorova, V. F. 2683  
 Sidorova, V. V. 8250  
 Sidorovich, E. A. 8251  
 Sieber, V. K. 4273  
 Sieczka, J. B. 7326, 7332, 8278  
 Siegel, A. 2827  
 Siegel, B. Z. 278  
 Siegel-Roy, P. 4809  
 Siegel, S. M. 278  
 Siegmund, F. 901  
 Siemenroth, A. 6011  
 Siewecki, R. 7631  
 Sigurbjörnsson, B. 1025  
 Sikder, M. B. H. 11130  
 Sikka, K. C. 1190  
 Silapapun, A. 10499  
 Silbereisen, R. 3515  
 Sil'chenko, V. M. 7803  
 Silguero, J. F. 10727  
 Silva, A. C. F. da 11021  
 Silva, A. I. da 6705  
 Silva, A. R. da 5835, 5836, 6072, 6907, 6991, 7952  
 Silva, C. C. da 942  
 Silva, J. C. 5982, 5995, 7760, 8605, 10490  
 Silva, J. C. da 8888, 8890  
 Silva, M. I. da 10345  
 Silva, N. da 4609  
 Silva, N. M. da 10705  
 Silva, S. de O. E. 3405  
 Silva, W. J. da 2012  
 Silva, W. M. da 6376  
 Silveira, A. J. 7429  
 Silveira, A. J. da 580, 581, 7429  
 Silveira, A. P. da 6376  
 Silvius, J. E. 4415  
 Simanca, A. O. 9214, 9280, 9905, 10070  
 Simeone, R. 5867  
 Simeoni, F. 6085  
 Siminel, V. D. 130, 216, 9374  
 Siminovitch, D. 6975  
 Simmonds, N. W. 5249, 9407, 9836  
 Simmons, L. D. 2950  
 Simojoki, P. 10672  
 Simon, A. M. 917, 10081  
 Simon, J. 9668  
 Simon, J.-L. 1487  
 Simon, P. W. 837, 4602, 5549, 7658, 8504  
 Simon, U. 431, 6202, 7272  
 Simonenko, V. K. 2414  
 Simongulyan, N. G. 4381, 7372  
 Simons, J. H. 9258  
 Simons, M. D. 3006, 10384  
 Simpson, B. J. 5198  
 Simpson, C. E. 6457, 7508  
 Simpson, D. J. 2044, 10536  
 Simpson, E. 3909, 4088, 8094  
 Simpson, E. L. 8019  
 Simpson, G. M. 4161, 7156  
 Simpson, J. R. 3269  
 Simpson, S. 7866  
 Sims, H. J. 5880  
 Sims, J. L. 598, 608, 609, 8346  
 Şimşek, Y. 8491  
 Simura, T. 5358  
 Sin, G. 6968  
 Sinclair, D. F. 6236  
 Sinclair, J. B. 3768, 10150, 11176  
 Sinclair, T. R. 1587, 1589, 5794  
 Sinclair, W. A. 3629  
 Şindagi, S. S. 3468, 7489  
 Şindelková, M. 1848  
 Sinden, S. L. 5255, 7359, 7360  
 Sindhu, J. S. 2746  
 Sinel'nikova, V. N. 9217  
 Singburaudom, N. 2098  
 Singh, A. 2248, 8779  
 Singh, A. K. 2633, 6276, 6726  
 Singh, A. R. 8134, 8881  
 Singh, B. 1894, 9088, 11039  
 Singh, B. B. 4722  
 Singh, B. D. 2139, 5033  
 Singh, B. K. 5095  
 Singh, B. M. 1203, 1204, 8918, 9016, 9320  
 Singh, B. N. 2299, 8195, 8212, 9582, 9711  
 Singh, B. P. 4541, 9080, 10079, 11165  
 Singh, B. R. 6813, 6814  
 Singh, C. 3101  
 Singh, C. B. 6749, 7186  
 Singh, D. 8857, 10381, 10926  
 Singh, D. B. 4767  
 Singh, D. K. 9080  
 Singh, D. N. 875  
 Singh, D. P. 2603, 4706, 6366, 6744, 10127, 10181, 10718  
 Singh, D. R. 9073  
 Singh, D. V. 4913, 4914, 8703  
 Singh, F. 4111  
 Singh, G. P. 844, 10079, 11071  
 Singh, G. R. 844  
 Singh, H. 2412, 5713  
 Singh, H. B. 1896, 7309  
 Singh, H. G. 2122, 2138, 2299, 2316  
 Singh, H. N. 561, 2321, 2324, 2334, 2658, 2759, 3778, 4340, 9285, 10185, 11046, 11049, 11050, 11070  
 Singh, H. P. 9972, 11073  
 Singh, I. D. 2385, 9865  
 Singh, I. S. 3054  
 Singh, J. 145, 5033  
 Singh, J. M. 2708  
 Singh, J. N. 9053  
 Singh, J. P. 4765, 10079  
 Singh, K. B. 3782, 3791, 4673, 9331, 10180  
 Singh, K. G. 8209  
 Singh, K. N. 3378, 9827  
 Singh, K. P. 2316, 2890  
 Singh, M. 9631  
 Singh, M. B. 2401  
 Singh, M. M. 3189  
 Singh, M. N. 8703  
 Singh, M. P. 2117, 10754  
 Singh, N. 10133  
 Singh, N. P. 2759  
 Singh, O. P. 3773  
 Singh, P. J. 10183  
 Singh, R. 2765, 9459  
 Singh, R. A. 8919  
 Singh, R. B. 145, 1225, 2139, 2885, 2954, 4111, 5033, 7899, 7900, 10125, 10718  
 Singh, R. D. 10423  
 Singh, R. J. 8167, 9604, 10607  
 Singh, R. K. 994, 1760, 2403, 3460, 4111, 6953  
 Singh, R. L. 875  
 Singh, R. M. 145, 2139, 4111, 5033  
 Singh, R. N. 5460, 7750  
 Singh, R. P. 2746, 3796, 4410, 5041, 5123, 5133, 8505, 9006, 9229, 9688  
 Singh, R. R. 5123, 5133, 9688, 11046, 11049, 11050  
 Singh, R. V. 5133, 9688  
 Singh, R. V. P. 10287  
 Singh, S. 3931, 8712, 8762  
 Singh, S. B. 2334  
 Singh, S. D. 10565  
 Singh, S. H. 7969  
 Singh, S. J. 4679  
 Singh, S. N. 2658, 3065, 8117, 9285, 11070  
 Singh, S. P. 561, 1022, 1233, 2122, 2156, 2321, 2324, 2759, 3461, 3778, 3779, 3985, 4175, 4340, 4758, 5133, 6703, 7797, 9080, 9330, 9688, 10178, 10185, 10612  
 Singh, S. R. 3740, 11112  
 Singh, S. V. 7899, 7900  
 Singh, T. H. 549, 2288, 9815  
 Singh, T. P. 1141, 5021  
 Singh, U. 3789, 6792  
 Singh, U. P. 2299  
 Singh, V. C. 3972  
 Singh, V. P. 2289, 2992, 4079, 4204, 4703, 5626, 11116  
 Singh, V. S. 1840  
 Singh, Y. 2139, 5033  
 Singh, Y. D. 336, 5074  
 Singh, Y. P. 8875  
 Singhania, D. L. 9645, 10579  
 Sinha, A. K. 8205  
 Sinha, B. C. 8855  
 Sinha, G. C. P. 8739  
 Sinha, P. N. 2117  
 Sinha, S. K. 358, 987, 1753, 2708, 3976, 7133, 7397, 9629  
 Sinigovets, M. E. 2896  
 Siniscalco, A. 3959  
 Sinitin, S. S. 3945  
 Sinityn, S. S. 3945, 4874, 5063, 9473  
 Sinityna, S. M. 5870  
 Sink, K. C. 11047  
 Sinkovich, A. I. 1059, 1793, 10399  
 Sin'ko, L. T. 6540, 7605  
 Sinmena, B. 6970, 8718  
 Šinská, J. 1265, 2221, 3259  
 Sinskaya, E. N. 9361, 9365, 9479, 9750, 10209  
 Sionit, N. 5382  
 Šip, V. 1804, 10317  
 Sipma, G. 10832  
 Sipra Guha Mukherjee 7670  
 Siradhana, B. S. 10498  
 Siraj-ud-Din Shah 1806, 6888, 6892, 6894, 6895  
 Širbu, M. 9783  
 Širijeva, L. A. 7569  
 Sirotkin, V. V. 10347  
 Sisodia, N. S. 235  
 Sistrunk, W. A. 265, 759, 3561, 9994  
 Siswojo 5323  
 Sita, G. L. 2448  
 Sitapai, E. 3451  
 Sitarama Raju, K. 9007  
 Sithamparanathan, J. 413, 414  
 Sitles, H. D. 5478  
 Sitnikova, A. S. 4544  
 Sivan Pillai, K. 9087  
 Sivaprakasam, K. 4160  
 Sivaprasad, J. 3153  
 Sivaraj, A. 1347  
 Sivaraman, S. 2118  
 Sivasamy, N. 2758  
 Sivasubramanian, S. 370  
 Siviero, P. 5627  
 Sivolapov, A. I. 795  
 Siwi, B. H. 6140  
 Sjödin, J. 2678, 11083, 11084, 11085  
 Sjöstedt, B. 5416, 5417  
 Škaggs, R. W. 4363  
 Škaloud, V. 636, 9889  
 Skaracis, K. 7420  
 Skarbilovich, T. S. 8733  
 Skatova, S. V. 167  
 Skeibe, K. 3982  
 Skelding, A. D. 995  
 Skelly, J. M. 10959  
 Skene, K. G. M. 775, 9166  
 Skiebe, K. 217, 3883, 3982, 5941, 5946, 6993  
 Skilling, D. D. 8485, 10962  
 Skinner, D. Z. 4286  
 Skinner, J. C. 4405  
 Skirde, W. 7252  
 Sklyarev'ska, V. V. 7700  
 Sklyarevskaya, V. V. 7700  
 Sklyarova, N. P. 2257  
 Skokova, A. A. 3799  
 Skoog, H. A. 7433  
 Škorpik, M. 1804, 10317  
 Skorupska, H. 1591  
 Skovmand, B. 9497  
 Skrdla, W. H. 3256  
 Skrede, G. 6535  
 Skripnik, V. V. 687  
 Skripnikova, Z. V. 7521  
 Skroders, Ya. Ya. 4237  
 Skrypko, G. S. 10223  
 Skurygina, N. A. 7902  
 Skuterud, R. 4357  
 Slaboński, A. 8864  
 Slack, S. A. 5266  
 Slana, L. J. 8349  
 Slatkin, M. 3807, 5732  
 Slattery, R. J. 7339  
 Slavenas, I. Yu. 7081, 7094  
 Slep, D. A. 3225, 3227, 6225, 7259  
 Slobbe, L. van 7177  
 Sloomaker, L. A. J. 3089  
 Slovenčiková, V. 4912  
 Slusarenko, A. J. 6725  
 Slysarenko, A. G. 2980  
 Slysna', E. L. 644  
 Smail, V. W. 7101  
 Small, E. 8359  
 Smalley, E. B. 10492, 10951



- Smartt, J. 6821, 8634, 9076, 10089  
 Smedegaard-Petersen, V. 5056, 10552  
 Smeets, L. 7593  
 Smeltzer, G. G. 105, 106, 7993  
 Smetanko, O. A. 2010  
 Smiley, J. H. 583, 588, 3422  
 Smillie, R. M. 7091, 10237  
 Smítná, G. 7607  
 Smirnov, V. G. 1003  
 Smirnov, Yu. A. 3619, 5782  
 Smirnov, Yu. V. 7779  
 Smirnova, G. S. 706, 5782  
 Smirnova-Ikonnikova, M. I. 2773  
 Smirnova, L. F. 4992  
 Smirnova, T. I. 7423  
 Smith, B. C. 8369  
 Smith, B. J. 5479  
 Smith, C. W. 7373  
 Smith, D. B. 2857  
 Smith, D. H. 1412, 10411  
 Smith, D. H., Jr. 2986, 4832, 4918  
 Smith, D. M. 3249  
 Smith, D. R. 4066  
 Smith, D. W. 7640  
 Smith, E. L. 103, 172, 191, 2934, 6905, 6950  
 Smith, G. A. 3393  
 Smith, G. R. 7301  
 Smith, H. C. 2871  
 Smith, H. F. 7021  
 Smith, H. H. 2369  
 Smith, I. M. 3719  
 Smith, J. B. 7866  
 Smith, J. D. 4981, 6015, 6016, 7056  
 Smith, J. H. 8621  
 Smith, J. M. 6828  
 Smith, L. J. 2973, 5838  
 Smith, L. W. 970  
 Smith, O. D. 6457, 7518  
 Smith, O. S. 4062  
 Smith, P. G. 4637  
 Smith, R. A. H. 2184  
 Smith, R. H. 2298  
 Smith, R. L. 321  
 Smith, R. R. 5226, 6260, 8258  
 Smith, R. T. 6156  
 Smith, S. 494, 552  
 Smith, W. L. 4427  
 Smoček, J. 1764  
 Smolarz, K. 1475  
 Smoliak, S. 417, 6233, 9745  
 Smolyakov, V. A. 4869, 6931  
 Smrž, J. 1274, 1277, 3278  
 Smurygin, M. A. 461  
 Smyalovskaya, Ya. E. 3935  
 Smychenko, L. M. 2474  
 Smyslova, V. D. 115  
 Smyth, D. R. 15  
 Snape, J. W. 3909, 4088, 5847, 8094, 9387  
 Sneep, J. 1648, 3844  
 Snell, C. L. 871  
 Snidar, M. 2057  
 Śnieg, L. 8290, 9788  
 Snkhchyan, G. L. 781  
 Snoch, B. 10156  
 Snyder, F. W. 4415  
 Snyder, G. H. 8249  
 Snyder, J. 4042, 7026  
 Snyder, J. C. 8562, 8577  
 Snyder, R. L. 972  
 Soave, C. 1032, 1034, 1950, 1994, 5994, 6048  
 Soave, J. 10723  
 Sobajima, Y. 6514  
 Sobennikov, E. V. 4833  
 Sober, O. B. 5423  
 Soberske, R. M. 3084  
 Sobrino Vesperinas, E. 3665  
 Sodkiewicz, W. 7995, 9501  
 Soedarsono, J. 8628  
 Soepadmo, E. 1660, 4501  
 Soest, L. J. M. van 1301, 4324  
 Soetono 6071  
 Sogawa, K. 402  
 Soh, A.-C. 8947  
 Sohan Singh 2489  
 Sohi, H. S. 7790  
 Sohn, S. I. 7642  
 Soifer, V. N. 5026  
 Sokhi, S. S. 4679, 9329  
 Sokol, A. A. 3123, 9607  
 Sokol, P. F. 820  
 Sokolov, B. P. 10421  
 Sokolov, E. K. 1676  
 Sokolov, V. A. 10165  
 Sokolov, V. M. 10486  
 Sokolov, Yu. P. 9981  
 Sokolova, A. V. 5162, 7225  
 Sokolova, E. A. 9116  
 Sokolova, K. D. 10312  
 Sokolova, N. A. 8008  
 Sokolova, S. A. 714, 891, 8410, 10882  
 Sokolova, T. B. 10711  
 Solanki, K. R. 2064, 9763  
 Solanki, S. S. 7687, 9926  
 Solansky, S. 198  
 Solberg, Y. 7266  
 Solbrig, O. T. 6844  
 Solc, C. 3967, 6979, 8763  
 Solei, Z. 3569  
 Soler, C. 5943  
 Solferini, O. B. 10442  
 Solheim, B. 887  
 Soliman, K. M. 5882  
 Soller, M. 997, 10203  
 Solomatin, M. I. 7719  
 Solomko, E. A. 5250  
 Solomon, S. 9639  
 Solonenko, L. P. 6095  
 Solonenko, T. A. 10477  
 Solonetskaya, E. V. 7041, 7049  
 Solonichenko, V. G. 3819  
 Solov'ev, K. N. 10224  
 Solov'eva, N. A. 9944  
 Somaatmadja, S. 4710  
 Somers, D. 3104, 10532  
 Somers, D. A. 7095  
 Somers, G. F. 1684  
 Somerville, S. C. 189  
 Sommer, C. 10233  
 Somogyi, E. 932  
 Somrith, B. 3164, 4192, 6161  
 Son, S. H. 590  
 Son, W. H. 6587  
 Sonawane, K. Y. 4149  
 Sondahl, M. R. 5360  
 Song Hak Gun 9672  
 Song, N. H. 350  
 Song, R. J. 2897  
 Song, W. Q. 1703, 1704, 4003  
 Song, X. B. 4195  
 Song, Y. H. 1238  
 Songin, W. 1290, 8295  
 Sonoda, R. M. 3701, 4313, 4314, 6662  
 Sonoda, T. 7656  
 Sonone, H. N. 2328  
 Sood, A. K. 9320  
 Sood, B. C. 376, 9693  
 Sood, D. R. 11158  
 Soong, T. S. T. 1970  
 Soost, R. K. 1458, 8415, 9133, 10884  
 Sopalova, E. V. 6494  
 Sopory, S. K. 7328, 7670  
 Sorensen, E. L. 4290, 5216, 8953  
 Sorensen, F. C. 6595  
 Sørensen, H. 3464, 6692  
 Sorensen, R. C. 3246  
 Soressi, G. P. 3709, 6652, 6709  
 Soria, V. J. 4451  
 Sorochenko, S. F. 10393  
 Soroka, V. P. 9830  
 Sorrells, M. E. 3754, 4843  
 Sosa, O., Jr. 4831, 9494  
 Sosamma Jacob 2700  
 Sosian, I. E. 1444  
 Sosnikhina, S. P. 1003  
 Sosulski, F. W. 982, 6693  
 Sosyan, I. E. 1444  
 Sotavov, Sh. P. 771  
 Sotnikov, P. M. 4920  
 Sotomayor-Rios, A. 10488, 10567  
 Sótónyi, J. 4895  
 Sousa, C. N. A. de 7878  
 Sousa, P. G. 7181  
 Sousa S., M. 6718  
 Souter, E. W. 10688  
 South Africa, Citrus and Subtropical Fruit Research Institute 10897  
 South Africa, Department of Agricultural Technical Services 207  
 Southern, J. W. 7964  
 Southwell, R. J. 6976  
 Southwood, O. R. 10675  
 Souto, G. F. 1481  
 Souza, D. M. de 7223  
 Souza, E. L. S. 6623  
 Souza Filho, B. F. de 8015  
 Souza Machado, V. 1406  
 Sova, J. 5948  
 Sovero, M. M. 10550  
 Sowbhagya, C. M. 2154, 3175  
 Sowell, G., Jr. 1412, 6640, 11011  
 Soyfer, V. N. 5026  
 Sozonova, L. I. 9997  
 Spaar, D. 4819  
 Spain, Asociación de Investigación para la Mejora de la Alfalfa 4279, 5209  
 Spain, Instituto Nacional de Investigaciones Agrarias 10703  
 Špaldon, E. 6927, 6967  
 Spanu, A. 2684  
 Sparks, V. D. 8796, 10132  
 Sparrow, D. H. B. 7907  
 Spasojević, V. 10843  
 Spaul, V. W. 9838  
 Spayd, S. E. 3603  
 Specht, J. E. 3751, 4736, 7767, 10140  
 Speckmann, G. J. 8654  
 Spence, J. A. 2360, 6815  
 Spencer, D. 2802  
 Spencer, J. 1931  
 Sperow, C. B., Jr. 8016  
 Spiegel-Roy, P. 4535, 5452  
 Spielman, R. S. 9346  
 Spiers, J. M. 5479  
 Spiertz, J. H. J. 78, 81, 83, 88, 1705, 1710, 1720  
 Spikell, M. 5733  
 Spirova, M. 6943  
 Spitters, C. J. T. 5049  
 Splendido, R. 2674  
 Spoor, W. 2187  
 Sprague, G. F. 1670, 4955  
 Springer, W. D. 426  
 Spruill, W. M., Jr. 4971, 9532  
 Spunar, J. 7860  
 Spurr, D. T. 5887  
 Squillace, A. E. 9194  
 Sra, S. S. 10809  
 Sredojević, S. 3080  
 Sreedharan, P. N. 3179, 5121  
 Sreekumar, S. G. 2709, 6736, 6743  
 Sreenath, H. L. 9085  
 Sreenivasan, M. S. 3449, 9874  
 Sreenivasan, T. V. 7416  
 Srestha, H. M. 8643  
 Srikant Kulkarni 1104, 1853, 1854, 1863, 1864, 1867, 3968, 3969, 4893, 9486  
 Srikant, P. 1604  
 Srinath Rao 8271  
 Srinivasan, C. 8441  
 Srinivasan, C. S. 626, 6426, 9872, 9875, 9876  
 Srinivasan, K. 4697  
 Srinivasan, S. 2164, 9704  
 Srinivasan, T. E. 9660, 10611  
 Srinivasulu, K. 8731  
 Srivastava, A. N. 3461  
 Srivastava, B. J. 1356  
 Srivastava, C. P. 2139  
 Srivastava, J. N. 2598  
 Srivastava, J. P. 2759  
 Srivastava, K. D. 4913, 4914  
 Srivastava, K. P. 4175, 4176, 7174  
 Srivastava, P. S. 10354  
 Srivastava, R. B. 7559, 10316  
 Srivastava, S. B. L. 2746  
 Srivastava, S. K. 1405, 2326, 4402  
 Ssali, H. 10112  
 Stace, C. A. 3235, 9364  
 Stachewicz, H. 3326  
 Stack, R. W. 7873, 10369  
 Stack, S. M. 10049  
 Stahlhut, R. W. 11142  
 Štajgr, V. 7239  
 Stalker, H. T. 3481, 7507, 8684  
 Stalter, R. 6586  
 Stam, P. 1627  
 Stamenković, S. 3541  
 Stamp, P. 1952, 4045, 5005, 6043, 7046  
 Stančević, A. 2491, 2492, 5442, 9112  
 Standridge, N. N. 3096  
 Stănescu, D. 772  
 Staneva, B. I. 9294  
 Stanford, E. H. 1260  
 Stang, J. R. 8578  
 Stangl, R. 3490  
 Stanisława, K. 4943  
 Stankevich, K. V. 3550  
 Stanko, S. A. 10304, 10452  
 Stankov, I. 7954  
 Stankova, P. 7954  
 Stanley, D. W. 1575  
 Stanojević, D. 3469  
 Staples, R. 5087  
 Staples, R. C. 7713  
 Stapley, J. H. 394  
 Stapper, M. 259  
 Starks, K. J. 1195, 3085  
 Starling, T. M. 1142, 1143, 1144, 1145  
 Starlinger, P. 10432  
 Starrantino, A. 5454  
 Start, N. D. 6080  
 Startek, K. A. 8054  
 Startseva, E. P. 3997  
 Starzycki, S. 1761  
 Stasz, T. E. 5706, 10179  
 Statler, G. D. 202, 1354, 1870, 4398, 10733  
 Staub, J. 7316, 8973  
 Staub, T. H. 3702  
 Staudt, G. 776  
 Staveland, J. R. 2378  
 Staverek, S. J. 5790  
 Stead, A. D. 2607, 6615  
 Steadman, J. R. 11106  
 Stearns, M. M. 5837, 5838  
 Stebbins, G. L. 6841  
 Stebbins, N. B. 1106  
 Steckel, J. R. A. 6660  
 Steenackers, V. 5517  
 Steer, B. T. 6608  
 Stefan, K. 7353  
 Stefanini, R. 2873  
 Stefanis, E. de 2946  
 Stefanova-Kr'steva, L. 6655, 6656  
 Stefanova-Krusteva, L. 6655, 6656  
 Steffensen, D. M. 1948  
 Stegmann, H. 496, 11086  
 Steinbach, P. 514  
 Steinegger, D. H. 5167, 8234  
 Steiner, K. C. 1501, 7639, 7655  
 Steinhoff, R. J. 5534  
 Steinhorst, R. K. 8285  
 Steinmetz, A. 3858, 4017  
 Stelly, D. M. 6757, 6758  
 Stelter, H. 2275, 3331  
 Stenhausen, G. 2654, 5622  
 Štepanchenko, V. I. 6543  
 Štěpánková, S. 3592  
 Stepanova, G. I. 9474, 9475  
 Stepanova, R. V. 2216  
 Stepanyan, S. S. 7710  
 Stephan, B. R. 5537, 8476, 9189  
 Stephan, D. 7513  
 Stephenson, G. R. 4000  
 Stephenson, R. A. 6805, 8631  
 Stepina, L. A. 9606  
 Stepchokin, P. I. 219, 3980, 3986, 3987  
 Steponkus, P. L. 3193



- Ster, M. van der 6108  
 Sterling, J. D. E. 106  
 Stern, H. 17  
 Sternkopf, G. 5871  
 Stetsova, N. G. 3942, 6963  
 Stettler, R. F. 819, 5517  
 Steuckardt, R. 3728, 6255  
 Stevens, M. A. 4651  
 Stevenson, W. R. 8555, 8556  
 Stewart, B. A. 5900  
 Stewart, G. A. 3140  
 Stewart, G. R. 6214  
 Stewart, J. C. 946  
 Stewart, M. D. 5945  
 Stewart, R. H. 1908  
 Stewart, R. K. 10258  
 Stikić, R. 3921, 4037  
 Stjepanović, M. 5212  
 Stobbs, L. W. 3723, 7726  
 Stockinger, K. 6806  
 Stocks, J. 4443, 6415  
 Stoenescu, F. M. 9891  
 Stoeva, P. K. 4641  
 Stojanovic, B. J. 5501, 6553  
 Stojanović, J. 2921  
 Stojanović, S. 2966  
 Stokes, S. 5937  
 Stolarz, A. 6152  
 Stølen, O. 141, 3089, 5053, 5056, 10552  
 Stolk, J. H. 480, 839, 925, 7697, 8520  
 Stoll, K. 7543  
 Stone, B. C. 2443  
 Stonecypther, R. W. 819  
 Stoner, A. K. 7717  
 Storey, T. S. 4319  
 Stössel, R. 7775  
 Stout, D. G. 4161  
 Stout, J. T. 5620  
 Stover, R. H. 4556  
 Stoy, V. 1668  
 Stoyanov, B. 6397, 6404  
 Stoyanov, I. 8690  
 Stoyanova, M. P. 8351  
 Strada, G. della 3508, 5450, 6477, 6509  
 Straka, G. 10204  
 Straley, M. L. 10374  
 Strand, E. 3879  
 Strandberg, J. O. 5589  
 Strande, K. 9422  
 Strass, F. 5967  
 Stratton, S. D. 5171, 5190  
 Strazdina, V. A. 10253  
 Street, J. R. 3215  
 Streetman, L. J. 5198  
 Strel, B. 3045, 3203  
 Strel'chuk, S. I. 176  
 Strel'tsina, S. A. 10862  
 Strel'tsova, T. A. 10992, 10993  
 Stringam, G. R. 4456, 4460, 5620  
 Stringheta, P. C. 654, 655, 656, 735, 2453  
 Strobeck, C. 10, 2779, 3812, 7810  
 Stroev, V. S. 182  
 Stromberg, A. M. 2096  
 Stromberg, E. L. 5632  
 Stuber, C. W. 1974, 3032, 4012, 4954, 5981, 5991, 7033, 8804, 9533, 9562, 9563, 10463  
 Stübner, F. 8790  
 Stucker, R. E. 3249  
 Stucky, J. M. 7510  
 Stuczyńska, J. 7247  
 Stumman, B. M. 976  
 Stupina, N. Yu. 9735  
 Sturelid, S. 11081  
 Sturgeon, K. B. 4596, 10032  
 Sturm, W. 7016  
 Stushnoff, C. 1471, 4564, 5425, 7334  
 Stuteville, D. L. 4286  
 Stuthman, D. D. 4925, 4926  
 Styer, R. C. 4040, 7058, 8047  
 Su, C. M. 4191  
 Su, H. S. 1222, 3095  
 Su, I. W. 2932  
 Su, J. M. 4191  
 Su, L. C. 8692  
 Su-Wong, H. 10397  
 Su, Y. W. 2932  
 Suarez, L. A. 5204, 5205, 5656  
 Subandi 1117, 4036, 7021, 7032  
 Subba Rao, D. V. 4183  
 Subba Rao, G. V. 3133  
 Subba Rao, K. 9007  
 Subba Rao, M. V. 6115  
 Subbarayudu, V. C. 8152  
 Subda, H. 1091, 1092, 7003, 7019, 8011  
 Subden, R. E. 2539, 2540  
 Subhash, K. 5402  
 Subhash Sharma 2334  
 Subhashini, U. 595  
 Subiyanto, S. 5099  
 Subodh Jain 3234  
 Subodh Joshi 9088  
 Subrahmanyam, N. C. 8847  
 Subramanian, D. 1571, 3724, 10119, 10120  
 Subramanya, H. 9872  
 Subramanya, R. 5597  
 Subramanyam, M. D. 9143  
 Suchkova, L. V. 10980  
 Suci, Z. 6607, 6641  
 Suchling, F. E. T. 8235  
 Sud, G. 700  
 Sud, U. C. 7795  
 Sud, V. K. 8918  
 Suda, Y. 6471  
 Sudewad, S. M. 7142  
 Sudhakar, D. 3470  
 Sudhakar Rao, A. 11064  
 Sudharshan, M. R. 9084  
 Sudjana, A. 4036  
 Sudnikova, V. P. 5930, 10389  
 Sugawara, S. 9861  
 Sugimoto, T. 6377  
 Sugino, K. 447, 3245  
 Sugiyama, S. 4251, 5191, 5192, 9736  
 Suh, D. Y. 3095  
 Suh, H. S. 1222, 3095  
 Suitor, R. W. 7241  
 Sukhani, T. R. 4175, 4176, 7174  
 Sukhanov, V. M. 9559, 10452  
 Sukhapinda, K. 4025  
 Sukhareva, N. B. 10923  
 Sukhatme, P. V. 4772  
 Sukhija, B. S. 9226  
 Sukhorukov, A. F. 8749  
 Sukhorzhevskaya, T. B. 6052  
 Suksayretrup, K. 4146  
 Sukul, N. C. 10739  
 Sukumara Pillai, V. 2449  
 Sukumaran Nair, P. 6761  
 Sukurov, M. 6358  
 Sulakova, E. P. 4228  
 Sułek, D. 1103  
 Suleman, N. M. 5831  
 Sulima, V. 5947  
 Sulima, Yu. G. 74, 215, 10399, 10400  
 Sulimova, R. M. 3557, 5437  
 Sulinowski, S. 7235, 7248  
 Sullivan, C. Y. 92, 341  
 Sullivan, D. 2719, 2730, 7763  
 Sullivan, J. A. 4289  
 Sullivan, M. J. 10153  
 Sullivan, S. 8321  
 Sultanov, K. 6351, 9004  
 Sultanul Alam 3755  
 Suman Bagga 7670  
 Suman Sahai 9306  
 Sumarno 1594  
 Sumberg, J. E. 7285  
 Sumeghy, J. B. 2638, 7714  
 Sumita Jha 9096  
 Sumitra Sen 19, 9096  
 Summerfield, R. J. 5710, 5711, 8570  
 Summers, T. E. 10758  
 Summers, W. L. 5581, 8580, 9250  
 Sumner, D. R. 3887  
 Sumo, F. J. 8208  
 Sumrell, G. 3152, 4112  
 Sun, A. C. 1967  
 Sun, A. T. 1967, 8813  
 Sun, C. J. 5126  
 Sun, C. S. 1113, 1802, 3988, 8696, 9673, 9678  
 Sun, C. W. 3346  
 Sun, J. R. 5126  
 Sun, J. S. 1113, 1802, 3988  
 Sun, P. 1772  
 Sun, S. C. 3908  
 Sun, Y. R. 9079  
 Sun, Z. R. 5126  
 Sunarjono, H. 6663  
 Sundaram, A. 9300, 9908  
 Sundarajan, S. 5614  
 Sundaresan, K. 5320  
 Sundaresan, S. 9608  
 Sunderland, N. 1150, 1151, 9356  
 Sunderman, D. W. 2973, 5837, 5838  
 Sundermann, S. E. 6094  
 Sunderwirth, S. D. 1869  
 Sundstrom, J. 3104  
 Sundukova, M. V. 5557  
 Sung, H. P. 4195  
 Sung, I. J. 7326  
 Sung, J. C. 2897  
 Sung, W. C. 1703, 1704, 4003  
 Sunita Joshi 1996  
 Sunita, F. F. 5650  
 Supak, J. R. 4367  
 Supapoj, N. 3165, 5103, 5111, 5113  
 Supryn, S. 2888  
 Suput, M. 3063  
 Suputtitada, S. 8629  
 Suraj Bhan 4481  
 Suraj Singh Nehra 2909  
 Surányi, D. 5436, 9940  
 Surendra Prakash 2970, 7113  
 Suresh Kumar 3377, 3741, 9010, 9011  
 Surguladze, Sh. M. 2501, 7567, 9956  
 Surguladze, V. A. 9131  
 Suri, D. K. 1843  
 Suri, H. K. 8194  
 Surico, G. 2433, 2434  
 Surikov, I. M. 7982, 8002  
 Surin, N. A. 3847  
 Suriya Rao, A. V. 2132  
 Surkov, Yu. S. 4108, 7120, 8127  
 Surkova, L. I. 10312  
 Surmava, M. E. 9241  
 Suryanarayana Reddy, B. G. 1777, 2074, 2452  
 Suryaprasad Raju, D. 6112  
 Suseelan, K. N. 10303  
 Suso, M. J. 6690  
 Sutar, R. S. 296  
 Šutić, D. 10843  
 Sutka, J. 1071, 4865, 7892  
 Sutton, J. C. 9592  
 Suty, L. 112  
 Suvanprakorn, K. 5607  
 Suvorova, G. S. 10391  
 Suwarso 4428, 9850  
 Suwwan, M. A. 2641  
 Suyatinov, I. A. 7606, 9162  
 Suzdal'skaya, M. V. 10410  
 Suzuki, C. 9104  
 Suzuki, H. 7199, 8183  
 Suzuki, M. 10776  
 Suzuki, S. 9692, 9732  
 Suzuki, Y. 863  
 Sváb, J. 9401, 9464  
 Svads, H. 5245  
 Svarinskaya, R. A. 10542  
 Svec, L. V. 3751  
 Svendsen, A. B. 5530  
 Svensson, G. 5823, 9445  
 Svensson, R. 6433  
 Světlík, V. 1279, 2186  
 Sviridov, A. A. 3467  
 Sviridova, A. D. 2562  
 Svolba, J. 7653  
 Swait, A. A. 5468  
 Swaminath, M. H. 326  
 Swaminathan, M. S. 4204, 7189, 7966, 10601  
 Swamy Rao, T. 1122, 1398, 5316, 6367, 6368, 6458, 9061, 9083, 10829  
 Swamy, S. N. 8900  
 Swamy, Y. M. I. 2154  
 Swanson, E. B. 6275  
 Swartz, H. J. 5478  
 Swartz, M. J. 7996, 8086  
 Swarup, G. 7118  
 Swarup, V. 7309  
 Sweat, V. E. 10482  
 Sweden, Forsöksavdelningen för Växtförädling av Frukt och Bär, Balsgård 5410  
 Sweet, G. B. 8480  
 Swenson, E. 4564  
 Swift, H. 10243  
 Swindale, L. D. 1646  
 Swingle, H. D. 2627  
 Switzer, G. 803  
 Sycheva, L. V. 4600  
 Sydnor, T. D. 9187  
 Syed Anwar Hussain Rizvi 881  
 Syed Mohammad Arif 3436  
 Syed Sadaqat Mehdi 1806, 6892, 6894, 6895  
 Sýkora, M. 5029  
 Sýkora, S. 3855  
 Sýkorová, O. 2417  
 Syme, J. R. 2879, 5843  
 Symes, K. J. 1051, 1055, 1056, 1057, 1146, 6076, 7085  
 Syr'eva, T. L. 1599, 3777  
 Sysina, E. A. 1552  
 Sytnik, K. M. 6407  
 Syubarava, E. P. 9109  
 Syubarova, E. P. 5427, 9109  
 Szabados, L. 4813  
 Szabó, A. T. 460  
 Szabó, L. 9892, 10143  
 Szabó, M. 6448, 8296  
 Szabó, T. 10859  
 Szajó, Z. 9668  
 Szarejko, I. 8108  
 Szczepanski, K. 1439, 1440, 1476  
 Szczypińska, W. 1440  
 Szeleźniak, E. 3028  
 Szemerédi, M. 4582  
 Szemes, D. 5905  
 Szigat, G. 5939, 8836  
 Szilágyi, G. 8723  
 Szilágyi, G. 8711, 8723, 9454  
 Szilágyi, S. 932  
 Szilágyiné-Somogyi, E. 932  
 Szot, B. 1523  
 Szunics, L. 5883, 8711, 9463  
 Szyld, L. 3462  
 Szyrmer, J. 1652  
 Szysz, H. 8295  
 Taber, R. A. 7518  
 Tabib, Y. 1004  
 Tachibana, H. 3748, 11167  
 Tachida, S. 5136  
 Taggeva, S. V. 64  
 Taghizadeh, A. 6431  
 Tagiev, A. A. 546  
 Tagieva, L. A. 3601  
 Taha, M. A. 9810  
 Tahir, M. 1892, 6138  
 Täht, R. 6084  
 Tähtinen, H. 229  
 Tai, C. H. 4771  
 Tai, G. C. C. 1617, 1618, 3314, 3315, 6284, 8276  
 Tai, L. F. 4195  
 Tai, W. 5199  
 Tai, W. P. 2612  
 Tai, Y. J. 4209, 5126  
 Tailliez, R. 9751  
 Taira, H. 11163  
 Tairov, A. 3371  
 Taiwan, Asian Vegetable Research and Development Center 867, 1639  
 Taiwan, Institute of Botany, Academia Sinica 5755  
 Tajimi, A. 8939  
 Tajuddin, E. 2160, 6166  
 Takagaki, E. 9665  
 Takagi, H. 10361  
 Takagi, Y. 4730, 8599  
 Takahashi, H. 1236  
 Takahashi, K. 10892



- Takahashi, M. 2347, 2348, 6390, 8172, 9691, 10597  
 Takahashi, N. 419, 420, 863, 5191, 5192, 9736  
 Takahashi, R. 305, 1149, 6074, 8091, 9601  
 Takahata, N. 6829  
 Takahata, Y. 1532  
 Takai, S. 7649  
 Takatori, F. H. 1528, 7666  
 Takáts, D. 5055  
 Takatsu, A. 3412, 4423  
 Takayanagi, K. 862, 4457, 7667  
 Takeda, K. 4930, 5966, 7007, 8905, 9689  
 Takeda, T. 6392  
 Takeda, W. 4211  
 Takehana, S. 7650  
 Takemata, T. 1326  
 Takemura, I. 1460  
 Takeo, T. 7479  
 Takeuchi, S. 1326  
 Takidze, M. I. 3576  
 Takita, T. 1224, 2115  
 Tal, M. 910, 6836, 9272  
 Talakvadze, S. M. 1463  
 Talalaeva, M. G. 1727  
 Talbert, J. T. 6582  
 Talbert, R. E. 1559  
 Talekar, N. S. 2703, 6748  
 Taley, Y. M. 4174, 4180  
 Taliaferro, C. M. 3217, 3218, 5223, 10628, 10652  
 Talib Hussain 8994  
 Tallberg, A. 3119  
 Talyshinskiĭ, G. M. 4539, 6520, 9974  
 Tamang, M. B. 2395  
 Tamaş, L. 9783  
 Tamassy, J.-né 9464  
 Tamimi, H. N. 1539  
 Tamponi, G. 6477, 10005  
 Tamura, H. 7650  
 Tamura, Y. 5183, 5184  
 Tan, B. H. 6109  
 Tan, B. S. 1570  
 Tan Boun Suy 1570  
 Tan, G. Y. 4258  
 Tan, H. 3491, 5408  
 Tan, K. H. 5122  
 Tan, S. L. 2358  
 Tan, W. K. 4258  
 Tan, Y. C. 2312  
 Tan, Y. J. 2312  
 Tanabe, H. 7656  
 Tanaka, A. 2688, 2689  
 Tanaka, H. 9129, 10774  
 Tanaka, M. 3913  
 Tanaka, R. 791  
 Tanaka, S. 1767, 4718  
 Tandon, J. P. 7214  
 Tandon, V. 1389  
 Taneja, K. D. 5242  
 Tang, C. Y. 3149  
 Tang, T. 9041  
 Tanguy, A. M. 1069, 10308  
 Tanguy, X. 1403  
 Tani, T. 2828  
 Tanii, A. 6745  
 Tanimoto, T. 6759  
 Taniyama, T. 381  
 Tanksley, S. D. 898, 2643, 3713, 5621, 7708, 9268, 11041, 11043  
 Tanne, E. 2660  
 Tanner, D. G. 10397  
 Tanner, H. 1126  
 Tano, F. 4210  
 Tantsyura, A. I. 8866  
 Tanveer, M. 8995  
 Tapia, M. E. 6855  
 Tapu, Z. 8722  
 Tara Mohan, S. 1125, 9292  
 Tarafder, B. 9713  
 Tarakanov, G. I. 2631  
 Tarakanova, S. I. 10980  
 Tarakhtii, L. I. 9167  
 Taranenکو, L. K. 3202  
 Taranukho, G. I. 7304  
 Tarasenko, N. D. 77, 466, 6270, 6866, 10647  
 Tarasenko, N. N. 6973  
 Tarasenko, V. A. 3313  
 Tarasevich, E. I. 1048, 6901  
 Tarasova, L. E. 405  
 Tarasyuk, N. V. 4783  
 Târdea, A. 7607  
 Târdea, C. 7607  
 Taris, B. 6578  
 Tarkowski, C. 5952  
 Tarlavskaya, A. M. 8952  
 Tarn, T. R. 3315, 8275, 8276  
 Tarté, R. 7354, 7355  
 Tarumoto, I. 7144, 7145, 7146  
 Tarutina, L. A. 7042  
 Tascón, G. 4406  
 Tasdighi, M. 7689  
 Tase, L. 8378  
 Tashmatov, N. T. 550, 9817  
 Taskaev, A. I. 297  
 Tataara, A. 4091  
 Tatarenko, N. F. 4863, 10325  
 Tatebe, T. 3652  
 Tateishi, S. 10871  
 Tateishi, Y. 10683  
 Tatemichi, Y. 618  
 Tateoka, K. 3214  
 Tatlioglu, T. 10053  
 Tattersfield, J. R. 9898  
 Tauro, P. 4678  
 Tavdgiridze, Sh. K. 1625, 2389, 9867, 9869  
 Tavrin, E. V. 7903, 7904  
 Taya, S. 4839, 4840, 4841  
 Tayde, D. S. 1196  
 Tayebi, K. 1097  
 Taylor, A. J. 3973  
 Taylor, G. A. 2876, 10359  
 Taylor, G. B. 4297  
 Taylor, H. M. 11123  
 Taylor, J. C. 711, 6511  
 Taylor, J. D. 6724  
 Taylor, N. L. 3280, 4292, 5227, 5230, 6262, 7290, 10677  
 Taylor, R. J. 4594  
 Taylor, R. M. 3364  
 Tayo, T. O. 5695, 8568  
 Tazhin, O. T. 8074  
 Teakle, D. S. 7178  
 Teetes, G. L. 7176, 8144, 8145  
 Tehlan, R. S. 1760  
 Teissier du Cros, E. 8465  
 Teittinen, P. 9615, 10672  
 Teixeira, A. A. 10802  
 Teixeira, J. P. F. 11175  
 Teixeira, M. A. 655  
 Tekauz, A. 4103  
 Tekeli, A. S. 6218  
 Telang, S. W. 2701  
 Telaye, A. 4666  
 Telek, L. 930  
 Teles, F. F. F. 580, 581, 7429, 7747  
 Teleutsa, A. S. 9319, 11133  
 Teli, V. S. 9835  
 Téliz, D. 4574  
 Tella, A. F. 7754  
 Temerak, S. A. 2338  
 Temmen, K. H. 2525, 4550  
 Tempé, J. 3900  
 Temple, S. R. 5660, 6713  
 Templeton, A. R. 3816  
 Templeton-Somers, K. 838  
 Tenditnaya, O. M. 7084  
 Teng, C. F. 2446  
 Teng, Y. C. 6173  
 Tepedino, V. J. 11016, 11017  
 Teplyakova, O. A. 10245  
 Teppner, H. 9718, 10204, 10627  
 Ter-Manuël'yants, E. E. 2610  
 Teramura, T. 8301  
 Tereshchenko, N. M. 2217  
 Tereshchenko, O. I. 3310  
 Tereshchenko, R. I. 2050  
 Terez, E. I. 10224  
 Terlych, V. G. 769  
 Terns, M. 3407  
 Ternoouth, R. 4443  
 Terpó, A. 5559  
 Terrell, E. E. 7256  
 Terres, A. L. 8889, 8891, 8892, 8894, 9653  
 Terretaz, R. 1472, 1473, 10914  
 Terrill, T. R. 613, 5356  
 Terry, D. E. 3522  
 Terry, E. R. 4420, 5336, 6395, 7430, 9849  
 Tersian, R. T. 1419  
 Terzi, M. 4282  
 Terzyan, R. T. 1419  
 Tešović, Ž. 5467  
 Teşu, V. 8816, 9882  
 Tétényi, P. 9877, 9878, 9915, 9916, 10832  
 Teuber, L. R. 1260  
 Tew, T. L. 1359  
 Tewari, A. S. 5708  
 Tewari, S. N. 3377, 3741, 8854, 8875  
 Teyssandier, E. 10511  
 Teyssandier, E. E. 7178  
 Tezuka, M. 9733  
 Tezuka, T. 10870  
 Thaer, A. D. 1666  
 Thakare, R. G. 4761, 8316, 8593  
 Thakral, V. P. 10404  
 Thakre, S. K. 2101  
 Thakur, D. P. 9635  
 Thakur, J. C. 524  
 Thakur, M. L. 8473  
 Thakur, P. C. 872  
 Thakur, P. S. 3066  
 Thamburaj, S. 8516  
 Thangaraj, T. 8573, 10057  
 Thaxton, P. M. 4635  
 Theander, O. 7106  
 Therios, I. N. 2490  
 Therrien, M. C. 472  
 Theurer, J. C. 4413, 5326, 10769  
 Thiagalingam, K. 4214  
 Thibault, B. 3507  
 Thibault, P. 9856, 9857  
 Thiebaut, J. T. L. 5995, 7760, 8605  
 Thiele, M. 8872  
 Thiele, S. 9933  
 Thiellement, H. 3726, 7735  
 Thies, W. 860, 861  
 Thiessen, E. P. 4000  
 Thiesz, R. 3516  
 Thimmaiah, G. 1351  
 Thimmapaiah 4404  
 Thirathon, A. 1413, 7759  
 Thirumalachar, D. K. 10113  
 Tho, T. 813  
 Thomas, B. R. 9265  
 Thomas, C. A. 5646, 10824  
 Thomas, D. 2730  
 Thomas, E. 1186, 4038  
 Thomas, E. J. 1623, 6736, 6743  
 Thomas, H. 2195, 5962, 5963, 9388, 9734  
 Thomas, H. M. 8239  
 Thomas, J. B. 1108  
 Thomas, M. J. 6193, 6194  
 Thomas, P. 495  
 Thomas, R. G. 3286  
 Thomas, S. H. 10507  
 Thomas, S. M. 1714, 1715, 7937  
 Thomas, T. A. 11109  
 Thomas, T. H. 3716, 5593  
 Thomas, W. 10147  
 Thomason, I. J. 973  
 Thombre, M. V. 1418, 4373, 4376, 7379, 7384, 7577, 9001, 9019, 9256, 10715, 10740  
 Thompson, A. E. 5714, 8628  
 Thompson, D. 8063  
 Thompson, D. L. 4068  
 Thompson, J. B. 5441  
 Thompson, J. M. 9937  
 Thompson, K. F. 3456  
 Thompson, L. K. 1597  
 Thompson, P. G. 8283  
 Thompson, R. D. 5996  
 Thompson, R. K. 6243  
 Thompson, S. A. 9535  
 Thompson, T. E. 10825  
 Thompson, W. F. 57, 7729, 7730  
 Thompson, W. G. 10339  
 Thomson, A. J. 9772  
 Thomson, G. 2788  
 Thomson, J. A. 1021  
 Thomson, N. J. 2800, 3358, 10726  
 Thong, S. N. 5979  
 Thontadarya, T. S. 2428  
 Thor, E. 3644  
 Thornbury, D. W. 9557, 10468  
 Thorne, G. N. 1714, 1715, 7937  
 Thren, R. 9918, 10846  
 Thseng, F. S. 2725, 2726, 3760  
 Thurbon, I. J. 7581  
 Thurling, N. 3287, 6268, 6434, 6436, 6797, 8363  
 Thurlow, D. L. 7777  
 Thurston, H. D. 5262  
 Thurston, R. 5355  
 Thyagarajan, A. 2118, 9658  
 Thyr, B. D. 3242, 4291, 7289  
 Thysell, J. R. 10401  
 Tiagi, B. 4494  
 Tian, W. Z. 4208  
 Tibilova, T. S. 7523  
 Tickoo, J. 990  
 Tickoo, J. L. 6742  
 Tien, W. C. 4208  
 Tietz, R. L. 10472  
 Tigchelaar, E. C. 8494, 8495, 8496, 8497, 8498, 8499, 8541  
 Tigerstedt, P. M. A. 308, 1119, 3988, 9204  
 Tikhenko, N. D. 3330  
 Tikhii, V. A. 3943  
 Tikhomirov, F. A. 4589  
 Tikhomirov, V. T. 2969, 4888  
 Tikhonov, S. P. 10390  
 Tikhonov, V. A. 7586  
 Tikhonova, A. V. 10392  
 Tikhonovich, I. A. 3822  
 Tikka, S. B. S. 1598, 3148, 4117, 4118, 4139, 4395, 5067, 7387  
 Tikoo, S. K. 8548  
 Tiku, A. K. 2397  
 Tilbury, L. G. 7698  
 Tillmann, E. 10432  
 Timbie, D. J. 5362  
 Timian, R. G. 4917  
 Timin, N. I. 5547  
 Timina, O. O. 3486, 11066  
 Timko, M. P. 9062, 10815  
 Timms, N. J. 456  
 Timofeev, A. A. 4750, 6859  
 Timofeev, A. N. 828  
 Timofeev, V. B. 3984, 4870  
 Timofeeva, N. I. 101  
 Timopheev, A. N. 828  
 Timoshenko, I. I. 4356  
 Timoshenko, V. M. 10245  
 Timoshenko, Z. V. 9769  
 Timothy, D. H. 7078, 9531, 10438  
 Timpeanu, I. 1940  
 Tin, E. M. 3625, 6576  
 Ting, I. P. 3001  
 Ting, Y. C. 4968, 4987, 4988, 4989, 10458, 10465, 10513  
 Tingey, S. V. 360  
 Tingey, W. M. 517, 5013, 6876, 10700  
 Tinline, R. D. 8124  
 Tinman, J. 1908  
 Tippayaruk, J. 4142  
 Tipton, J. L. 8383  
 Tirath Ram 2400  
 Tîrdea, G. 9324, 9333  
 Tirumalachar, D. K. 950, 2760  
 Tischler, C. R. 5173  
 Tishchenko, V. N. 205, 1859, 6980  
 Tishechkin, A. N. 3646  
 Tishenkov, A. D. 8708  
 Tisserat, B. 739, 3584  
 Titarenko, A. V. 7014  
 Tite, D. J. 5263



- Titov, A. F. 10639, 10640  
 Titov, E. V. 2578, 8481, 10946  
 Titova, N. Z. 7238  
 Titz, E. 664  
 Titz, W. 664  
 Tiwari, A. S. 6813, 6814  
 Tiwari, S. P. 235, 5034  
 Tizh, R. M. 3617  
 Tjamos, E. C. 7716  
 Tjørnholm, T. 1309  
 Tkachenko, F. A. 3696, 7665  
 Tkachenko, N. F. 6871  
 Tkachenko, P. I. 5384  
 Toda, Y. 8492  
 Todadze, E. B. 1486, 9172  
 Todd, E. H. 10758  
 Toderkan, V. G. 8805  
 Todorov, I. 8439  
 Todua, V. A. 2392, 2510  
 Toġganbaeva, N. T. 163  
 Toit, A. J. L. du 1917  
 Toit, D. du 6443  
 Toivio-Kinnucan, M. A. 7334  
 Tokeshi, H. 6376  
 Tokumasu, S. 1396, 1531, 3674, 3676, 9238  
 Tolba, M. A. 6700  
 Tolbert, N. E. 5345  
 Toler, J. E. 50  
 Toler, R. W. 2014, 5206, 7178  
 Tolin, S. A. 3774  
 Tolla, G. E. 5611, 7681, 7685  
 Tollefson, J. J. 5015  
 Tolubaeva, V. A. 182  
 Torna, L. D. 7551  
 Toman, S. I. 3017  
 Tomar, D. P. S. 7397  
 Tomášek, J. 9165  
 Tomašević, S. 2920  
 Tomaševićová, A. 2244, 4293  
 Tomer, R. P. S. 2289, 9816  
 Tomer, Y. S. 10709  
 Tomes, D. J. 5237  
 Tomes, D. T. 4307, 4308, 6275  
 Tomiyama, K. 1321, 2823, 6329, 6330  
 Tomlinson, J. A. 6625  
 Tommasi, F. 3959  
 Tomov, N. 6049  
 Tomozei, I. 9324  
 Tompsett, P. B. 4593  
 Tomyuk, B. P. 4021  
 Tonini, G. 1311  
 Toniolo, L. 2671  
 Toohill, B. L. 3586  
 Tookey, H. L. 5582, 5583  
 Tooley, P. W. 11173  
 Toomsan, B. 4682  
 Topham, P. B. 9978  
 Topornina, N. A. 7920  
 Toriyama, K. 387, 2108, 8158  
 Torkowsky, I. 8853  
 Törley, D. 3613  
 Toro M., J. C. 2354  
 Torop, A. A. 7014  
 Torp, J. 4098, 7107  
 Torre, L. C. 4543, 10900  
 Torregroza C., M. 1185  
 Torregroza Castro, M. 1185, 8793  
 Torres, A. C. 6623  
 Torres, A. M. 1470, 3584, 10884  
 Torres, C. 10488  
 Torres, C. J. 2694, 9126  
 Torres M., R. 8421  
 Torti, G. 3709  
 Tortosa, E. 7201  
 Tóth, P. 8856  
 Touni Ali Hussein 9560  
 Tovar P., D. 4155  
 Tovstik, M. G. 10283  
 Townsend, A. M. 804  
 Townsend, C. E. 3244, 4317, 5239  
 Toxopeus, H. 3659, 3666, 5565, 5574, 5578  
 Toya, K. 8832  
 Toyama, T. K. 3544  
 Toyao, T. 6421  
 Tracy, W. 9524  
 Tracy, W. F. 6012  
 Träff, K. 9308  
 Traineau, R. 7279  
 Trajkovski, E. K. 5414, 5417, 5418, 5420  
 Trajkovski, V. 5412, 5413, 5415, 5416, 5418, 5419, 5420  
 Tran Thanh Van, K. 5352, 6409, 7451  
 Traylor, D. D. 1078  
 Tredici, P. del 4496  
 Tréfasné Sallai, G. 1877  
 Tribulato, E. 3570  
 Tribunskii, A. N. 553  
 Trickey, S. A. 5168  
 Trigo Colina, M. I. 11072  
 Trikha, R. N. 11156  
 Trimble, J. L. 2580  
 Trindade, D. S. 10578  
 Trinh T. Hanh 5352, 7451  
 Trinklein, D. H. 8540  
 Tripathi, D. K. 8106, 8116  
 Tripathi, J. S. 175  
 Tripathi, M. P. 5626  
 Triplett, E. W. 311  
 Trippel, V. V. 7663  
 Trishnev, V. F. 1726  
 Trivedi, P. C. 4494  
 Trnka, M. 5976  
 Trofimovskaya, A. Ya. 8848, 9609, 9613  
 Troitskaya, L. A. 206  
 Troníková, E. 2629, 2644, 9412  
 Tropea, M. 6958  
 Troshin, L. P. 7606  
 Trost, K. 568  
 Trotsenko, A. G. 6857  
 Trotter, M. 1069  
 Trouslot, P. 8353  
 Troutman, P. R. 416  
 Troxler, J. 1109, 1111, 3207, 5960, 7300  
 Trudel, M. J. 5598  
 True, R. H. 10684  
 Truel, P. 8437  
 Trunin, L. L. 743  
 Trunov, I. A. 6481  
 Trus, N. K. 7305  
 Truseneva, N. K. 6900  
 Trushina, O. I. 10768  
 Truskinov, E. V. 8298  
 Trusov, N. V. 1909, 4941  
 Tryanova, R. A. 6859  
 Trzebiński, J. 8328  
 Tsaftaris, A. 1989  
 Tsaftaris, A. S. 4982, 4983, 7038  
 Tsai, C. K. 8910  
 Tsai, C. Y. 260, 1992, 4053, 8045  
 Tsai, H. S. 523  
 Tsai, I. A. 8911  
 Tsai, J. H. 7575  
 Tsai, K. H. 2718  
 Tsai, T. 522, 7364  
 Tsai, T. R. 9151  
 Tsai, T. S. 8839  
 Tsanava, V. P. 10212  
 Tsao, T. H. 9251, 9253  
 Tsarenaya, M. P. 3523, 5427  
 Tsarev, A. P. 792, 10948  
 Tsarevskii, Yu. D. 2870, 10274  
 Tsarichenko, A. P. 4879  
 Tsay, H. S. 523, 8344, 8904, 9860  
 Tsay, J. S. 4707  
 Tschanz, A. T. 3320, 11169  
 Tschopp, M.-F. 7062  
 Tsen, C. C. 2858  
 Tseng, C. C. 2937, 3932  
 Tseng, F. S. 2725, 2726, 3760  
 Tseng, I. S. 9000  
 Tseng, M. C. 8823  
 Tseng, M. T. 523, 1213  
 Tseng, P. L. 9676  
 Tseng, S. H. 5128  
 Tseng, S. T. 5117, 5119  
 Tseng, T. C. 3656  
 Tseng, Y. S. 4194  
 Tsenov, A. 1825  
 Tsent'yu, A. I. 10478  
 Tsertsvadze, N. V. 1492  
 Tsil'ke, I. A. 2884, 2922, 10309  
 Tsil'ke, R. A. 1599, 10309  
 Tsilosani, G. M. 8298, 9778  
 Tsitlenok, S. I. 9326  
 Tsitsin, N. V. 118, 122  
 Tso, C. H. 4208  
 Tsotsis, B. 1920, 1927, 4042  
 Tsou, M. C. 1772, 1786  
 Tsou, S. C. S. 2703  
 Tsou, S. Y. 2897  
 Tsu, T. M. 4195  
 Tsuchiya, S. 7552  
 Tsuchiya, T. 2022, 2023, 2635, 5032, 6381, 6382, 7088, 7098, 7420, 7421, 8069, 8081, 8082, 8083, 8084, 8085, 8092, 8100, 8101, 8107, 8493, 8835, 9349, 9604  
 Tsuda, C. 601, 6389, 6391, 8941  
 Tsui, L. C. 1231  
 Tsui, S. 10394  
 Tsukanova, Z. G. 714, 8410  
 Tsunewaki, K. 107, 108, 109, 1767, 4856, 6916  
 Tsung, C. H. 5126  
 Tsung, Y. K. 3074  
 Tsunoda, S. 854, 859, 864, 1750  
 Tsurkanenko, T. I. 1490  
 Tsuru, M. 4839, 4840, 4841  
 Tsushida, T. 7479  
 Tsutsumi, T. 7656  
 Tsuyuki, H. 10106  
 Tsvetkov, S. M. 5942  
 Tsyganash, D. A. 271  
 Tsyganash, V. I. 4997  
 Tsygankov, I. G. 10311  
 Tsybal, A. A. 5476  
 Tsybalenko, V. A. 8715  
 Tsyplakova, N. I. 212  
 Tu, C. C. 9249  
 Tu, H. 10437  
 Tu, J. C. 3907, 3933  
 Tuan, X. L. 4195  
 Tuazon, D. 8153  
 Tucker, A. O. 9339  
 Tucker, J. M. 4579  
 Tudzarov, T. 11054  
 Tugushi, K. L. 5512  
 Tulaeva, M. I. 9167  
 Tuleen, N. A. 1049  
 Tulloch, A. P. 7872  
 Tulmann Neto, A. 10451  
 Tuli Das 8196  
 Tumaikina, Z. S. 10393  
 Tumanyan, E. R. 9089  
 Tung, H. C. 1844  
 Tupinambá, E. A. 942  
 Turapin, V. P. 2982  
 Turbin, N. V. 1891, 3868  
 Turchaninova, L. V. 3578  
 Turcotte, E. L. 4368, 5287, 6342  
 Turcotte, P. 6070  
 Turelli, M. 5754  
 Turgeon, A. J. 3215  
 Turkenya, V. G. 2557  
 Turkina, G. M. 7225  
 Turkov, V. D. 125  
 Turková, V. 3780, 5705  
 Turlakov, I. P. 304, 3099  
 Turner, J. H., Jr. 6352  
 Turner, J. W. 6256, 6257  
 Turner, M. 8063  
 Turner, M. T. 5007  
 Turova, N. A. 10389  
 Turovskii, I. I. 6507, 10852  
 Turovtsev, N. I. 9124  
 Tursunov, T. 10722  
 Turuleva, L. M. 9785  
 Tuşa, C. 6968  
 Tuschall, D. M. 4984, 6009  
 Tutberidze, B. D. 2510, 9962, 10214  
 Tuwafe, S. 9331, 10180  
 Tuz, A. S. 7531  
 Tvrv, V. 2238  
 Twamley, B. E. 4308  
 Twarkowska, J. 7485  
 Twomey, J. 6306  
 Tworkoski, T. J. 10033  
 Tyagi, A. K. 660, 4790, 7815, 7819  
 Tyagi, A. P. 1344  
 Tyagi, I. D. 9631  
 Tyagi, P. D. 8761  
 Tyagi, P. S. 2029, 2030, 10538  
 Tyagunova, G. Ya. 5538  
 Tyaminov, A. R. 5300, 8999  
 Tyarina, V. S. 823  
 Tyler, B. F. 2178  
 Tylus, K. 1475  
 Tymchuk, M. Ya. 6871  
 Tymchuk, S. M. 272, 6871  
 Tynymbaeva, K. 9234  
 Tynymbaeva, K. T. 8510  
 Tyrnov, V. S. 9559  
 Tyson, H. 6363, 9014  
 Tyurina, M. M. 1454  
 Tywab, M. A. 7379  
 Tzung, J. H. 5126  
 Uchimiyah, H. 1381  
 Uchytill, T. F. 8332  
 Udachin, R. A. 9476  
 Udalov, V. V. 179  
 Udalova, V. B. 922, 10073  
 Uebersax, M. A. 7745  
 Uemoto, S. 10995  
 Ueng, P. P. 1851  
 Ugent, D. 8288  
 Ugherughe, P. O. 6219, 8943  
 Uglov, V. A. 3817  
 Ugolik, D. 8425  
 Ugolik, M. 8425  
 Uhlir, J. 3453  
 Uhlík, J. 2033, 2034, 10534  
 Uhrig, H. 9794  
 Ujihara, A. 6196  
 Ujihara, K. 1194, 6965, 8832  
 UK, East Malling Research Station 3495  
 UK, Glasshouse Crops Research Institute 1515  
 UK, John Innes Institute 3835  
 UK, Long Ashton Research Station, Bristol University 666  
 UK, National Institute of Agricultural Botany 9768  
 UK, National Seed Development Organisation 6915, 7313  
 UK, Plant Breeding Institute 8322  
 UK, Scottish Agricultural Colleges 8968, 9770  
 UK, Scottish Plant Breeding Station 7830  
 Ukai, Y. 2834, 4105, 9313, 9618  
 Ullasa, B. A. 7789  
 Ullemeyer, H. 4570  
 Ullrich, S. E. 2049, 3088, 7102  
 Ulrich, G. 4332  
 Ulrich, V. 4990  
 Uma Shanker, R. 5640  
 Umærus, M. 1667, 3322, 3323  
 Umærus, V. 3322  
 Umanets, B. I. 4342  
 Umbeck, P. F. 7053, 9566  
 Umekawa, M. 9254  
 Unan, L. 2913  
 Unchegaonkar, P. K. 10712  
 Undersander, D. J. 8267  
 Unger, C. 5494  
 Untila, I. P. 10527  
 Unwin, C. H. 8612  
 Upadhaya, L. P. 10125  
 Upadhya, M. D. 7329  
 Upadhya, J. P. 9844  
 Upadhyay, M. K. 1831, 2970, 7113  
 Upadhyaya, H. D. 4722  
 Upadhyaya, U. C. 10754  
 Upadhyaya, Y. M. 3972  
 Upchurch, W. 751, 10648  
 Uppal, D. K. 773, 2553  
 Uppström, B. 6433  
 Urayama, M. 2688  
 Urazaliev, R. A. 2924, 3914, 3919



- Urbańska-Worytkiewicz, K. 4311, 5238  
 Uritani, I. 2818  
 Uriu, K. 4577  
 Urquhart, N. S. 8512  
 USA, Ga., Agriculture Experiment Stations 586, 587  
 USA, National Plant Genetic Resources Board 5770  
 USA, Tex., Texas Forest Service 7624, 7625, 7626, 7627  
 Usan', S. A. 7080  
 Usha Mehta 4762  
 Ushacov, P. O. 9905  
 Ushacov, P. P. 9280, 10155  
 Ushakov, P. P. 4647, 9280, 9905, 10155  
 Ushirogi, T. 6707  
 Usik, V. A. 3943  
 Usmanov, S. A. 9803  
 Utikar, P. G. 6747  
 Utkhede, R. S. 4608, 4610, 7036, 8018  
 Uto, F. 9373  
 Utsuki, H. 2689  
 Utsumi, S. 7771  
 Uttam, R. K. 7004  
 Uvarov, V. I. 10174  
 Uzakov, Yu. 9813  
 Uzihara, T. 4158  
 Užík, M. 1278, 1280, 2231, 3281, 3284, 5229  
 Vacek, V. 1284, 2193, 2224, 2238, 2244, 3258, 4293  
 Vachún, Z. 3592  
 Vachúnová, A. 1264, 1269  
 Vagera, J. 1377, 2912  
 Vágnerová, V. 1264, 1268  
 Vaidehi, M. P. 5665  
 Vaidya, D. N. 6778  
 Vaidya, K. R. 4662, 4706, 6198  
 Vaidyanath, K. 375, 1227  
 Vaidyanathan, C. S. 2448  
 Vainshtein, R. M. 2649  
 Vairavan, S. 6195  
 Vaishnav, M. R. 7504  
 Vaishnav, P. P. 336, 5074  
 Vaisman, S. Ya. 899  
 Vakhabov, A. 550  
 Vakhidova, L. R. 2742  
 Vakhrameeva, E. I. 4924  
 Vakhtina, L. I. 4612  
 Vakili, N. G. 11107  
 Valarini, P. J. 7181  
 Valat, C. 3607  
 Val'chik, V. Ya. 5243  
 Valdebouze, P. 6676  
 Valdés-Bermejo, E. 6597  
 Valdeyron, G. 418  
 Valdivieso, M. 10770  
 Valencia-Villarreal, J. A. 10358  
 Valenta, M. 779, 10937  
 Valentine, D. H. 9362  
 Valentine, R. C. 5787  
 Valíček, P. 2305, 2306, 2307  
 Valiev, R. R. 1164  
 Välijeva, T. Z. 7569  
 Valk, M. 832  
 Valladares-Sanchez, N. E. 11094  
 Valle, P. 4574  
 Vallega, J. 2060  
 Vallejo Rosero, G. 2429  
 Vallotton, R. 6885  
 Valmayor, R. V. 2531  
 Valodzin, Ů. G. 2901, 4854  
 Valodzina, L. A. 3912, 6990  
 Valsamma Mathew 2533, 3605  
 Vámos-Vigyázó, L. 712  
 Vamvoukas, D. 9075  
 Van, É. N. 5065, 5066  
 Vance, C. P. 444, 1693, 3252  
 Vance, J. E. 4190  
 Vančo, B. 1282, 2236, 8957  
 Vandam, J. 10273  
 VanEtten, C. H. 5582, 5583  
 VanEtten, H. D. 4690  
 Vanjaria, N. K. 4153  
 Vánova, M. 4828  
 Vanstallen, R. 1366  
 Varadarajan Nair, P. 6180  
 Varady, C. 238, 1043, 1054, 2878, 6914, 10285  
 Varakin, A. N. 10023  
 Vardanian, I. A. 1573  
 Vardanian, K. A. 1573  
 Vardanyan, D. A. 1573  
 Vardanyan, J. H. 1573  
 Vardanyan, K. A. 1573, 6710  
 Vardanyan, K. H. 1573  
 Varde, N. P. S. 7530  
 Vardi, A. 6517  
 Vardukadze, D. A. 725  
 Varekamp, H. Q. 8533  
 Varenitsa, E. T. 2961  
 Vargas Camplis, J. 9009  
 Varivoda, O. P. 8529  
 Varkey, M. 6365  
 Varkey, P. A. 2700  
 Varlakhov, M. D. 1599, 2741, 7845, 11103  
 Varma, J. P. 4659  
 Varna, R. Ya. 1550  
 Varo, H. 1480  
 Varriano-Marston, E. 1077, 3951, 6117  
 Varsanyi-Breiner, A. 2719  
 Varseveld, G. W. 5545  
 Varvaro, L. 2433, 2434  
 Varvio-Aho, S.-L. 5726  
 Vasal, S. K. 3058, 6067  
 Vasantha Shetty, K. P. 2514  
 Vasconcelos, A. C. 9062, 10815  
 Vashakidze, L. 1491  
 Vashakidze, L. K. 2545  
 Vashchenko, A. P. 7779  
 Vashchishina, D. L. 467  
 Vashi, P. S. 3137  
 Vasil, I. K. 7123, 9624, 9632, 10563  
 Vasil, V. 7123, 10563  
 Vasil'chuk, N. S. 10348  
 Vasilenko, I. D. 5527  
 Vasil'ev, P. P. 3880, 4924  
 Vasileva, M. 11178, 11180  
 Vasileva, M. M. 7783  
 Vasil'eva, T. M. 5063  
 Vasil'eva, T. N. 4080, 8247, 8949  
 Vasilevskaya, G. A. 10234  
 Vasilevskaya, V. A. 6996  
 Vasilică, C. 9825  
 Vasiliskov, V. F. 6204  
 Vasil'kevich, S. I. 687  
 Vas'ko, P. P. 7871  
 Vassileva, M. 11178, 11180  
 Vassileva, M. M. 7783  
 Vasudeva Rao, M. J. 2088  
 Vasudevan, K. 10598  
 Vasyakin, N. I. 1599, 4274  
 Vaughan, D. A. 6156  
 Vaughn, K. C. 2647, 8164  
 Vaulx, R. D. de 874, 1417, 2783, 11015  
 Vavenkov, N. V. 10275  
 Vavilov, A. S. 675  
 Vavilov, N. I. 187, 5735, 9361  
 Vavilov, P. P. 2232, 5771  
 Vavilova, M. A. 488  
 Vázquez, E. F. 4188  
 Vecchia, P. T. D. 6623  
 Vecher, A. S. 1910  
 Vecher, A. S. 687, 1910, 10247, 10418  
 Ved Parkash 1752  
 Ved Parkash Manocha 1622  
 Vadamuthu, P. G. P. 8573  
 Vedel, F. 4824, 8729  
 Vedenescu, S. N. 5707  
 Veena Tandon 1389  
 Veevers, A. 6873  
 Vega-Ortega, U. A. 6083, 8849  
 Vega, U. 6083  
 Veilleux, R. E. 8282, 8971  
 Vekić, N. 8012  
 Velázquez Díaz, O. 9297, 10135, 11092  
 Velázquez, O. 9297, 11092  
 Velchev, V. 6529  
 Velemínský, J. 10540  
 Velibekov, M. D. 9428  
 Veličković, D. 3524  
 Veliev, I. M. 2559  
 Velikovský, V. 3994  
 Velkov, V. N. 5386  
 Vel'sovskaya, L. A. 8873  
 Vel'yaminova-Zernova, L. D. 3316  
 Venere, R. J. 2310  
 Venjari, K. B. 2704  
 Venkata Rao, G. 8917  
 Venkata Rao, P. 7160  
 Venkataram, M. N. 9885  
 Venkatarayappa, T. 2532  
 Venkatasubbaiah, K. 1551, 5615  
 Venkatesam, C. 2532  
 Venkatesh, C. S. 6581, 8467, 8468  
 Venkateswara Rao, T. 3298  
 Venkateswarlu, B. 9685  
 Venkateswarlu, P. 6746  
 Venkateswarlu, V. 9307, 10820  
 Venketeswaran, S. 9352  
 Ventsel', G. 10205  
 Venugopal, M. S. 4177, 4182  
 Venugopalan Nambiar, P. K. 2449  
 Vera, C. L. 1399  
 Vera Cruz, C. M. 2167  
 Verawudh, J. 2732  
 Verbist, J. F. 503  
 Verbitskii, N. M. 10168  
 Verbovskaya, I. V. 1550  
 Verch, R. L. 5519  
 Vereschagin, G. A. 7188, 8180, 8197, 8912  
 Vereschagin, P. V. 2529  
 Vereschagina, V. A. 3800  
 Veretyushenko, E. G. 9740  
 Vergara, B. S. 5093, 5097, 5104, 5105, 5107, 5111, 8915, 9686  
 Verghese, T. M. 2751  
 Verhaegh, J. J. 3514, 6483, 6484  
 Verhalen, L. M. 2286, 8302, 10721  
 Verma, A. N. 8414  
 Verma, D. P. S. 2719, 2730, 2731, 7763, 7770  
 Verma, G. D. 319, 10255, 10814  
 Verma, H. S. 956  
 Verma, J. P. 3795, 9006  
 Verma, K. K. 4175  
 Verma, M. M. 8093  
 Verma, P. R. 5887  
 Verma, R. A. 5626  
 Verma, R. C. 3133  
 Verma, R. K. 1141, 5021  
 Verma, S. K. 1205, 8195, 8212, 9711  
 Verma, S. N. P. 2755  
 Verma, V. D. 9059, 10811  
 Veronesi, F. 7274  
 Vershinin, A. V. 5702, 10165  
 Versluis, C. 10832  
 Vertigan, W. A. 7087  
 Verzá-Petri, G. 9829  
 Verzhuk, V. G. 9456  
 Veselkova, K. I. 4752  
 Vesmin'sh, G. É. 782, 783  
 Vest, G. 848, 5597  
 Vestman, G. 4257  
 Vestrheim, S. 9118, 9122  
 Veszki, P. 9829  
 Vian, W. E. 5040  
 Viands, D. R. 444, 3247, 6249, 10665  
 Vidaković, M. 3036  
 Videnović, Ž. 4059  
 Vidović, O. 7740  
 Vidyachandra 2119  
 Vidyakin, A. I. 809  
 Vidyasagar Rao, K. 3797, 3798  
 Vidyashankar, T. S. 9885  
 Viegas, W. S. 7919  
 Vieira, C. 942  
 Vig, B. K. 5645  
 Vigh, L. 5814, 6054  
 Vijaya Kumar, C. S. K. 3963, 8760  
 Vijayagopal 2454  
 Vijayagopal, P. 2454, 6469  
 Vijendra Das, L. D. 6434  
 Vikhrova, L. A. 7418, 7426, 10762  
 Vikmane, M. Ya. 3707  
 Vikraman Nair, R. 6761  
 Vilasini, G. 1295  
 Vilchez, M. 1105  
 Vil'de, É. I. 7501  
 Vilela-Morales, E. A. 8412  
 Vilhorda, B. W. 6712  
 Vilkova, N. A. 9418  
 Villa, N. 9550  
 Villareal, R. L. 6190, 8300, 10617  
 Villarreal Fariás, E. 9009  
 Villarreal-Gonzalez, J. M. 2097, 7155  
 Villegas, E. M. 3058  
 Vinaya Rai, R. S. 369, 2132, 4215, 5132, 9687  
 Vincent, A. 112  
 Vincent, A. P. 3574  
 Vincent, J. M. 11160  
 Vinke, J. H. 515  
 Vinogradova, V. 754  
 Vinogradova, V. V. 5913  
 Vinovets, A. D. 5434  
 Vinovets, A. V. 4524  
 Viotti, A. 1034  
 Virányi, F. 6450, 9893  
 Virmani, S. S. 8208, 9652  
 Viro, M. 3107  
 Virupakshappa, K. 6353, 9302, 10114  
 Vishnevskaya, G. I. 892  
 Vishnevskaya, R. I. 7302, 9757  
 Vishnu Swarup 7309  
 Vishveshwara, S. 626, 3449, 6426, 9872  
 Vislouchkova, N. P. 10833  
 Visperas, R. M. 5093, 8915  
 Visser, D. L. 884, 6644, 11036  
 Visser, S. 3718  
 Visser, T. 3514, 6483, 6484  
 Viswambharan, K. 6733, 6739  
 Viswanatha, K. P. 1414  
 Viswanathan, T. V. 6733, 6739  
 Vitale, A. 10108  
 Vitale, C. 8433  
 Vitchenko, É. F. 9252  
 Vitenko, V. A. 6300  
 Vito, M. di 4533, 4657, 4658  
 Vitosh, M. L. 8289  
 Vittal Rai, P. 2514  
 Vitti, P. 5335  
 Vittrup, J. 5438  
 Vitvitskii, M. A. 7017  
 Vivekanandan, P. 2118, 9658  
 Vivero Vidal, J. L. 4261  
 Vizer, K. J. 4837  
 Vizzotto, V. J. 3407  
 Vlasenko, V. P. 6105  
 Vlasov, M. I. 9903  
 Vlasov, Yu. I. 2655  
 Vlasova, É. A. 915, 9769  
 Vlasova, V. S. 10837  
 Vliet, F. van 2777  
 Vlk, J. 1270  
 V'lkova-Achkova, Z. V. 4641  
 Vodkin, L. O. 7055  
 Vodyanova, O. S. 7661, 8510, 9234  
 Vogel, G. 5772  
 Vogel, K. P. 4243, 6238, 8245, 8248, 9625, 9743  
 Voges, J. H. 3055  
 Voica, E. 6562  
 Voilokov, A. V. 843, 1524  
 Voinea, S. 4470  
 Voitenok, F. V. 2311, 5306  
 Voitovich, K. A. 9168  
 Vokál, B. 2270  
 Volik, N. M. 4342  
 Volin, R. 3419  
 Volin, R. B. 4630, 6662  
 Völker, T. 8702  
 Volkova, A. M. 313, 5910, 5911, 10363



- Volodin, L. A. 3912  
 Volodin, V. G. 298, 1729, 1779, 2901, 4854, 5861, 7921, 10462  
 Volodin, V. I. 10174, 11103  
 Volodina, L. A. 3912, 6919, 6990  
 Volovich, P. I. 9196  
 Volpe, N. 939  
 Volstedt, F. du R. 8745  
 Voluznev, A. G. 7588  
 Volynets, A. P. 8252  
 Vondráček, J. 4510, 8396  
 Vorob'eva, A. A. 5558  
 Vorob'eva, G. A. 902, 8545  
 Vorob'eva, G. V. 11196  
 Vorob'eva, R. A. 10350  
 Voronchikhina, A. Ya. 9119  
 Voronenko, T. A. 7617  
 Voronkova, A. A. 5929  
 Voronova, S. 10717  
 Vorsa, N. 3264  
 Vos, D. A. de 8549  
 Vos, J. 1713  
 Vos, N. M. de 1711  
 Vosa, C. G. 9551, 10453  
 Voskan'yan, S. S. 9749  
 Voskoboïnik, L. K. 5384  
 Voskresenskaya, V. V. 902, 9227  
 Voss, E. G. 5719  
 Vossen, H. A. M. van der 6425, 7480  
 Vostrukhina, N. P. 7422  
 Vovk, E. A. 5248  
 Vovlas, N. 4533  
 Vrain, T. C. 4604  
 Vranceanu, A. V. 6451  
 Vrazhnova, R. A. 10353  
 Vries, A. P. de 2679  
 Vuitteñez, A. 3607  
 Vulić, B. 2882  
 Vulkova-Achkova, Z. V. 4641  
 Vulsteke, G. 7679  
 Vyahalkar, G. R. 10713, 10725  
 Vyas, A. M. 401  
 Vyrodov, D. A. 893, 897, 2642, 4639  
 Vyshinskaya, M. I. 3557  
 Vysotskii, A. A. 9198  
 V'yushkov, A. A. 9432, 9489, 10271  
 Wächter, V. 2965, 4896  
 Wacker, G. 4262, 8238  
 Waddle, B. W. 7373  
 Wadhokar, R. S. 4180  
 Wadikar, V. B. 2439  
 Wagenvoort, M. 6303, 6314  
 Wagle, D. S. 6760, 11158  
 Wagner, A. 1103  
 Wagner, R. 8437  
 Waheed Sultan Khan 7380  
 Wahid Bux Baloch 6136  
 Wahid, M. 6612  
 Wahiduzzaman, M. 10602  
 Waines, G. 3001  
 Waines, J. G. 4852, 4861, 7905  
 Wainwright, S. J. 6214  
 Waked, M. Y. 8309  
 Wakimoto, S. 2165  
 Wal, A. F. van der 515, 7352, 7356, 7357  
 Wal, A. van der 7352  
 Walberg, G. 10963  
 Walbot, V. 6843, 9581  
 Waldbauer, G. P. 1240  
 Walden, D. B. 1131, 4972, 6044, 8039, 8040, 8054, 9549, 9555  
 Waldhör, O. 10996  
 Waldia, R. S. 10124, 10709  
 Waldman, M. 1651  
 Walgenbach, P. 5586  
 Walgenbach, P. J. 5590  
 Walker, A. K. 7762, 7776  
 Walker, D. A. 6222  
 Walker, D. I. T. 9836  
 Walker, H. J. 2014  
 Walker, J. K. 1352  
 Walker, K. A. 7855  
 Walker, M. E. 4486  
 Walkey, D. G. A. 3681, 5591, 5662, 6621, 6622, 6724  
 Walkinshaw, C. H. 10960  
 Wall, J. S. 1133, 5078  
 Wallaart, R. A. M. 2786  
 Wallace, A. 3476  
 Wallace, D. H. 2690  
 Wallen, V. R. 2697  
 Wallender, C. J. 1559  
 Waller, G. R. 7515  
 Wallin, J. R. 286, 3070, 7074  
 Walsh, E. J. 4681  
 Walstrom, J. W. 1253  
 Walt, W. J. van der 1930, 1932  
 Walter, R. 6239  
 Walter, W. M., Jr. 1324, 1325, 4362  
 Walters, D. E. 2685  
 Walters, H. J. 3262, 4741, 11134  
 Walters, M. C. 1921  
 Walters, P. 5224  
 Walther, U. 8872  
 Walton, L. R. 615, 1382, 1383  
 Walton, M. F. 10581  
 Walton, P. D. 7244, 9730  
 Walyaro, D. J. 6425, 7480  
 Wample, R. L. 3638  
 Wandelt, W. 5940, 5950, 7983, 8778  
 Wanderley, L. J. da G. 7660  
 Wang, A. S. 1943  
 Wang, B. X. 386  
 Wang, C. C. 1113, 1802, 3988, 9673, 9678  
 Wang, C. H. 9099  
 Wang, C. L. 3753  
 Wang, C. M. 5280  
 Wang, C. N. 569  
 Wang, C. Z. 5280  
 Wang, G. H. 5370  
 Wang, G. M. 4739  
 Wang, H. S. 3698  
 Wang, I. H. 3015  
 Wang, J. F. 4208  
 Wang, J. H. 5128  
 Wang, J. J. 1113, 1802, 3988  
 Wang, J. L. 3753  
 Wang, J. M. 5280  
 Wang, J. R. 9151  
 Wang, K. C. 3475  
 Wang, K. H. 5370  
 Wang, K. J. 3475  
 Wang, K. Y. 9041  
 Wang, L. C. 1794  
 Wang, L. Q. 1794  
 Wang, M. C. 4536  
 Wang, M. Q. 4536  
 Wang, P. 3930, 8823  
 Wang, P. H. 386  
 Wang, R. F. 4208  
 Wang, R. H. 5128  
 Wang, S. M. 2107  
 Wang, T. C. 5280, 11169  
 Wang, T. F. 4193  
 Wang, X. S. 3698  
 Wang, Y. C. 3698  
 Wang, Y. J. 3698  
 Wang, Y. X. 3015  
 Wang, Y. Y. 1967, 8813, 9906  
 Wang, Z. F. 4193  
 Wang, Z. N. 569  
 Wangikar, P. D. 9328  
 Wani, P. V. 5259  
 Wani, S. P. 9025, 9839  
 Wanjari, K. B. 2704, 2756, 6817  
 Wankhede, S. D. 5860  
 Wanki, S. B. C. 5638  
 Wann, E. V. 888, 5019  
 Wanyoko, J. K. 2394  
 Waon, S. S. 8834  
 Waraitch, K. S. 4409  
 Ward, C. M. 6625  
 Ward, E. J. 251  
 Ward, E. W. B. 7775, 8612  
 Ward, M. 2581  
 Ware, G. O. 3887  
 Warke, D. C. 2509  
 Warner, R. L. 2041, 3104, 7095, 7104, 10529, 10532  
 Warren, H. L. 260, 1992, 6057  
 Warren, J. 6804  
 Waś, M. 5268, 5270  
 Wasano, K. 5118  
 Wassom, C. E. 3057  
 Wastie, R. L. 4500  
 Watada, A. E. 4515  
 Watanabe, N. 601, 6408  
 Watanabe, Y. 690, 692, 9254  
 Waterhouse, D. 10656  
 Waterworth, H. E. 7539  
 Watkins, J. E. 8768  
 Watson, C. A. 1079  
 Watson, C. E., Jr. 7250, 7265  
 Watson, I. A. 10266  
 Watson, L. 4245  
 Watson, O. 1234  
 Watson, P. J. 8231  
 Watson, R. 8501  
 Watson, V. H. 7250  
 Watt, E. 7753  
 Watts, D. G. 92, 341  
 Watts, G. M. 10547  
 Watts, J. 6291  
 Wawrzyniak, J. 8389  
 Way, R. D. 3522  
 Wcislo, H. 5154  
 Wearstler, K. A., Jr. 10038  
 Weatherhead, M. A. 8284  
 Weaver, J. B., Jr. 537, 1335, 2291  
 Webb, B. D. 1209, 4212, 4216, 7204, 8184  
 Webb, H. W. 3361, 9818, 10719  
 Webb, R. E. 6291, 6324, 6334, 7337, 10684  
 Weber, C. R. 5423  
 Weber, C. W. 1547, 5651  
 Weber, D. 8023, 8033, 8034  
 Weber, D. F. 1947, 3031, 4969, 4980  
 Weber, G. 6755  
 Weber, I. 5544  
 Weber, W. E. 11181  
 Webster, A. D. 9942  
 Webster, B. D. 4478  
 Webster, D. M. 5660  
 Webster, G. R. 2228  
 Webster, G. T. 7257  
 Webster, J. 7671  
 Webster, J. A. 2986, 4918, 10411  
 Webster, J. M. 3721, 11056  
 Webster, O. J. 4123, 4130, 6121  
 Weeden, N. F. 5749  
 Weeks, W. W. 1368, 1369, 2381, 3438  
 Weerapat, P. 397, 8914  
 Węgrzyn, S. 1061, 1152  
 Węgrzyn, V. A. 7037  
 Wehner, D. J. 8229  
 Wehner, O. 3664  
 Wehner, T. C. 7781, 8617  
 Wei, C. J. 3024  
 Wei, J. R. 3024  
 Wei, L. Y. 7077  
 Wei, Y. C. 5482  
 Weibel, D. E. 1195, 4145, 4146, 7155  
 Weibull, P. 8936  
 Weijer, J. 2203, 2204, 9741, 9742  
 Weil, J. H. 3858  
 Weilenmann, F. 1054, 1111, 2877, 2878, 3092, 3954, 5960, 6880, 10285  
 Weiling, F. 5494  
 Weinbaum, S. A. 2490, 4577, 7622  
 Weinheimer, W. H. 5620  
 Weinrich, M. 132  
 Weintall, C. 4629  
 Weir, B. S. 3, 2789, 5728, 5730, 5981  
 Weisæth, G. 5579  
 Weisgerber, H. 7653  
 Weiss-Lerman, J. 1392, 1393, 1406  
 Weiss, M. G. 4734  
 Weissinger, H. H. 3032, 8804, 9533  
 Wellendorf, M. 2573  
 Weller, J. 10203  
 Wells, B. 7866  
 Wells, D. G. 4900  
 Wells, H. D. 6272, 6273, 9634  
 Wells, J. A. 5604  
 Wells, L. G. 615  
 Wells, O. O. 9194  
 Wells, O. S. 8278  
 Welsh, J. R. 3956, 6913, 6949  
 Welty, R. E. 6250, 7287  
 Weltzien, H. C. 9030  
 Wende, E. 10171, 10172  
 Weng, C. 9000  
 Weng, J. 9000  
 Weng, V. K. 3143, 4159  
 Wennerholm, J. E. 6617  
 Wenzel, G. 4326, 4327, 5252, 9409, 9794, 10205  
 Werner, D. 3682  
 Werner, D. J. 5592  
 Werner, G. M. 3703  
 Wernicke, W. 1186, 3145  
 Wernsman, E. A. 607, 2367, 3438, 4439, 7468, 7469, 10787  
 Wersuhn, G. 3851  
 Weryszko, E. 9513  
 Weschke, H. 8693  
 Wesenberg, D. M. 1167, 3096  
 West, D. 10497  
 West, D. R. 1937  
 Westcott, R. J. 497  
 Westfall, D. G. 8326  
 Westwood, M. N. 10868  
 Wet, J. M. J. de 1719, 3139, 3730, 4019, 4269, 6833, 7078  
 Wetherall, R. 5224  
 Wetschnig, W. 10627  
 Wetter, L. R. 1373, 8340  
 Wettstein, D. von 10536, 10964  
 Wetzel, D. L. 1188  
 Wheatley, G. A. 9795  
 Wheatley, W. G. 8843  
 Wheeler, H. 2825  
 Wheeler, N. C. 3638  
 Wheeler, T. L. 4147  
 Whelan, E. D. P. 5383, 6442  
 Whiley, A. W. 10844  
 Whitaker, T. W. 5595, 5596  
 White, D. G. 1137, 2555  
 White, D. W. R. 10676  
 White, E. M. 2855  
 White, F. H. 585, 6399, 7432, 7434  
 White, G. A. 7130  
 White, J. G. H. 8618  
 White, J. M. 5589  
 White, J. W. 6711  
 White, L. M. 7868  
 White, M. C. 9315, 9316  
 Whitehead, A. G. 5263  
 Whitehead, J. 8678  
 Whitfield, P. R. 10791  
 Whitmore, J. L. 1499  
 Whitten, B. L. 3811  
 Whittington, W. J. 3309, 3903, 6737, 6942  
 Wiatroszak, I. 4942  
 Wicke, H.-J. 8860  
 Wickersham, D. S. 10292  
 Wickramaratne, M. R. T. 7477  
 Widholm, J. M. 10045  
 Widick, J. D. 469  
 Widner, J. N. 4417  
 Widstrom, N. W. 3085, 7072, 8063, 10509  
 Wiebe, G. A. 1154, 1158, 1160, 1161  
 Wiebold, W. J. 3756, 10144  
 Wien, H. C. 8591, 11164  
 Wiener, M. 5833  
 Wiersma, J. V. 59  
 Wietschel, G. 1315  
 Wiggans, S. C. 8278  
 Wijk, A. J. P. van 10557  
 Wilcockson, S. J. 4349  
 Wilcox, D. A. 9790  
 Wilcox, R. A. 3747, 3749, 5688, 5699, 6750, 6756  
 Wilcox, M. 1980



- Wilcox, M. D. 8470  
 Wilcoxon, R. D. 4104, 4906, 4925, 4926, 10555  
 Wilczyńska-Kostrzewa, W. 1074  
 Wilde, G. 10589  
 Wildman, S. G. 1381, 10262  
 Wildon, D. C. 1150  
 Wildung, D. K. 5425  
 Wilfret, G. J. 5617  
 Wilhelmi, K. D. 6908, 8721  
 Wilkes, H. G. 10431  
 Wilkinson, G. N. 1917  
 Wilkinson, R. E. 4689  
 Willard, J. I. 4832  
 Willey, R. L. 2558  
 Williams, A. F. 9571  
 Williams, C. 3772, 11174  
 Williams, C. B., III 5664  
 Williams, C. D. 3174  
 Williams, D. J. 11168  
 Williams, E. G. 5207, 9753, 10783  
 Williams, J. H. 3751, 4736, 7767, 9898, 10140  
 Williams, J. T. 7843, 8679  
 Williams, N. D. 1832, 4917  
 Williams, O. 3126  
 Williams, P. C. 1094, 1096, 1811, 10343  
 Williams, P. H. 633, 853, 1533, 1535, 3677, 4620, 5580, 5582, 5583, 5584, 11032  
 Williams, R. J. 2098, 10565  
 Williams, T. D. 3007  
 Williams, T. E. 10884  
 Williams, W. 471, 4305, 9378  
 Williams, W. M. 8263  
 Williams, W. P. 3083  
 Williams, W. T. 5767, 6236, 6822  
 Williamson, B. 5469  
 Williamson, C. J. 8231, 8232, 8233  
 Williamson, R. E. 2380, 2381  
 Willing, P. 8048  
 Willmer, P. G. 5485  
 Wills, A. B. 865, 1544, 2608, 3667, 3675  
 Wills, R. B. H. 3527  
 Wilson, C. W., III 5466  
 Wilson, D. 5168, 8223  
 Wilson, D. R. 6291  
 Wilson, F. D. 540, 554, 4393, 5309, 6362, 7394, 10728  
 Wilson, H. D. 6197  
 Wilson, H. M. 2373  
 Wilson, J. F. 4452  
 Wilson, K. G. 2647, 8164  
 Wilson, L. A. 3493, 6333, 9848  
 Wilson, L. F. 9170  
 Wilson, R. F. 11141  
 Wilson, R. L. 6362, 10728  
 Wilson, S. R. 5731  
 Wilson, U. E. 4355  
 Wilson, V. E. 5712  
 Wilten, W. 3120  
 Wilton, A. C. 3244, 3256  
 Winata, L. 3275  
 Winet, P. 4583  
 Winkel, A. 4935  
 Winkler, U. 1023  
 Winzeler, H. 1712  
 Winzeler, M. 3954  
 Wiseman, B. R. 2831, 3085, 7072, 7175, 8709, 10509  
 Wiseman, E. M. 2608, 3675  
 Wiser, W. J. 6023, 6156  
 Wissing, G. 8693  
 Wit, P. J. G. M. de 1558, 9281  
 Witcombe, J. 1733  
 Witcombe, J. R. 1699  
 Withers, L. A. 21  
 Witter, M. S. 7641  
 Witters, R. E. 2346  
 Wlazelko, M. 9186  
 Wochok, Z. S. 3649  
 Wofford, D. S. 7265  
 Wöhlert, W. 3391  
 Wojciechowski, A. 6432, 8255  
 Wójcik-Wojtkowiak, D. 8119  
 Wolfe, E. C. 10675  
 Wolfe, M. S. 3125, 5925  
 Wolfe, R. I. 316, 6077, 6078, 6079, 10524, 10525, 10526  
 Wolfenbarger, D. A. 4394  
 Wolff, G. 10090  
 Wolffgang, H. 1170, 3129, 9933  
 Wollard, D. L. 7709  
 Wolpert, J. A. 3612  
 Wolpert, T. J. 5085, 9651  
 Wolski, T. 4936, 4944  
 Wolynetz, M. S. 5511  
 Womack, M. 6156  
 Wong, B. L. 9253  
 Wong, K. C. 6809, 8641  
 Wong, P. T. W. 6976  
 Wong, T. Y. 9136  
 Woo, I. H. 3368  
 Woo, S. C. 4197, 5761  
 Wood, C. J. 8698  
 Wood, D. 6856  
 Wood, D. R. 949, 5657, 7741  
 Wood, E. D. 1580  
 Wood, J. T. 2071, 4884  
 Wood, P. M. 6274  
 Wood, R. K. S. 6725  
 Woodfin, C. A. 7150  
 Woodham, R. C. 5488  
 Woodhead, S. 4172  
 Woodlands, K. J. 10675  
 Woodlief, W. G. 7445  
 Woodruff, B. J. 7139  
 Woodruff, D. R. 165  
 Woods, D. L. 1399, 4467, 10623  
 Woods, F. E. 2601  
 Woodward, K. E. 4487  
 Woodward, R. S. 711, 6511  
 Woerner, P. 6806  
 Workman, M. 6306  
 Worland, A. J. 1080, 5879, 9387  
 Worley, S., Jr. 6352  
 Worrall, W. D. 9502  
 Wöstemeyer, J. 10432  
 Wratten, S. D. 5937, 6789  
 Wricke, G. 10053  
 Wright, A. J. 5729  
 Wright, J. W. 804, 1498, 1502  
 Wrigley, C. W. 76, 1744  
 Wrona, A. F. 6875  
 Wu, C. P. 3753  
 Wu, C. W. 1702  
 Wu, H. J. 6045  
 Wu, H. K. 4853, 5764, 5765  
 Wu, H. S. 2816, 9855  
 Wu, K. I. 9002  
 Wu, K. K. 7412  
 Wu, L. 366, 367, 3234, 6198  
 Wu, L. J. 9130  
 Wu, L. P. 2936  
 Wu, M. K. 8813  
 Wu, S. C. 1231, 5761, 5762, 9673, 9678  
 Wu, S. D. 2726, 2735  
 Wu, S. H. 8910  
 Wu, S. T. 2726, 2735  
 Wu, S. Z. 1231  
 Wu, X. C. 4197, 5761, 5762  
 Wu, X. K. 4853  
 Wu, X. R. 6045  
 Wu, Y. H. 3368  
 Wu, Y. L. 6174  
 Wu, Y. S. 1856  
 Wu, Y. V. 5078  
 Wu, Y. W. 2284  
 Wu, Z. P. 3753  
 Wuensche, A. L. 7176  
 Wuidart, W. 7571, 7574  
 Wullstein, L. H. 4579  
 Wünsche, J. 8702  
 Wurl, G. 156, 157, 5888, 5889  
 Wurr, D. C. E. 6316  
 Wustrack, C. 8836  
 Wyatt, J. E. 5648  
 Wyatt, S. D. 7755  
 Wyman, J. G. 4690  
 Wynholds, P. F. 9824  
 Wynne, J. C. 3481, 6456, 7507, 7517  
 Wyse, R. 2344  
 Wysolmerski, J. C. 5431  
 Xhuveli, L. 8759  
 Xi, Z. Y. 1786, 2937  
 Xia, W. S. 3368  
 Xiao, Q. M. 386  
 Xiao, R. Y. 2584  
 Xie, X. A. 522  
 Xie, Y. C. 1107  
 Xie, Z. S. 3151  
 Xiloyannis, C. 4525  
 Xing, Y. Y. 5756, 5757, 5760  
 Xing, Z. Y. 2107  
 Xu, A. N. 2726  
 Xu, D. H. 5142  
 Xu, F. X. 2001  
 Xu, F. Y. 2312  
 Xu, T. W. 3109  
 Xu, X. C. 717  
 Xu, X. M. 1231  
 Xu, Y. F. 1703, 4003  
 Xu, Y. K. 4853  
 Xu, Y. R. 5126  
 Xu, Z. 4044  
 Xu, Z. Y. 1772  
 Yaagus, M. 4276  
 Yabuya, T. 8926  
 Yachevskaya, G. L. 2895, 2905, 3208, 3231, 4851  
 Yadav, A. K. 2412, 10817  
 Yadav, B. 2138  
 Yadav, B. S. 208, 318, 951  
 Yadav, G. R. 10940  
 Yadav, I. S. 9972  
 Yadav, S. P. 3922, 6933  
 Yadav, S. R. 2072  
 Yadava, T. P. 649, 2412, 2438, 4482, 4485, 10817  
 Yadov, A. A. 4503, 5509  
 Yaesh Siddiqi, M. 10545  
 Yagodka, V. M. 3926  
 Yakimenko, L. N. 11031  
 Yakimov, L. M. 61  
 Yakovlev, A. G. 8873  
 Yakovlev, S. P. 693, 695, 696, 3538, 7555, 9935  
 Yakovleva, I. A. 900  
 Yakovuk, A. S. 1378  
 Yakubova, M. M. 547, 7388  
 Yakunina, V. M. 2494  
 Yakushin, A. M. 5505  
 Yakuwa, T. 5563  
 Yamada, K. 589  
 Yamada, M. 1236, 8207, 9104  
 Yamada, T. 617, 6176, 10776  
 Yamada, Y. 1801, 5455  
 Yamagata, H. 9402  
 Yamagishi, H. 7193  
 Yamaguchi, H. 4091  
 Yamaguchi, I. 1147  
 Yamaguchi, M. 3711  
 Yamaguchi, S. 8431  
 Yamaguchi, T. 1235  
 Yamakawa, K. 4599, 6468, 6672, 6673  
 Yamakawa, O. 521  
 Yamaleev, A. M. 2978, 9482  
 Yamamoto, H. 2828  
 Yamamoto, K. 907, 6691, 8571  
 Yamamoto, R. T. 2653  
 Yamamoto, T. 8158  
 Yamamoto, Y. 623, 10775  
 Yamanaka, K. 1460  
 Yamane, H. 9163  
 Yamane, K. 374  
 Yamashita, A. 1147, 4105, 9313, 9618  
 Yamashita, K. 1821, 10885  
 Yamazaki, H. 757  
 Yamvrius, C. 6632  
 Yanchenko, V. I. 9448  
 Yanchis, Z. Yu. 7081  
 Yanev, S. H. 149  
 Yanev, S. Kh. 149  
 Yang, B. K. 350  
 Yang, C. 3679  
 Yang, C. H. 9251  
 Yang, C. L. 3015  
 Yang, C. M. 2597  
 Yang, C. S. 8911  
 Yang, C. Y. 2703  
 Yang, H. Y. 3105, 4206  
 Yang, K. S. 2333  
 Yang, L. F. 8911  
 Yang, L. S. 7413  
 Yang, Q. L. 3015  
 Yang, S. J. 9022  
 Yang, S. L. 571  
 Yang, S. M. 10824  
 Yang, S. R. 5482  
 Yang, T. H. 8823  
 Yang, T. T. 2333  
 Yang, T. X. 8823  
 Yang, W. C. 3475  
 Yang, W. H. 4194  
 Yang, W. Q. 3475  
 Yang, W. X. 4194  
 Yang, X. L. 571  
 Yang, Y. S. 10959  
 Yang, Y. W. 5758, 5759, 5760  
 Yang, Z. H. 9251  
 Yankelevich, B. B. 746  
 Yankoulov, M. T. 6864  
 Yan'kov, I. I. 10177  
 Yankulov, M. T. 6864  
 Yao, C. 3016  
 Yao, D. 10603  
 Yao, M. C. 6843  
 Yao, Z. 3016  
 Yap, T. C. 11126  
 Yaqub Mujahid, M. 8004  
 Yaraguntiah, R. C. 5404  
 Yarger, L. W. 10986  
 Yargunina, L. A. 9797  
 Yarina, G. N. 9449, 9476  
 Yarosh, N. P. 65, 2773  
 Yarullin, S. R. 9115  
 Yasevich, N. V. 4576  
 Yashina, I. M. 2254, 7358  
 Yashovskii, I. V. 1179  
 Yashuhara, M. 3420  
 Yasinski, I. I. 6920, 6957  
 Yasuda, S. 305, 3113, 8075  
 Yasui, H. 6468  
 Yasumuro, Y. 10307  
 Yatsenko, A. V. 10223  
 Yatsenko, N. D. 6973  
 Yatsenko, R. M. 10446  
 Yatsenko, V. V. 7063  
 Yatsuevich, A. A. 7936  
 Yatsko, V. P. 2895, 2905, 3208, 3231, 4851  
 Yavruyan, S. G. 6547  
 Yayock, J. Y. 2441  
 Yazdani, S. S. 9628  
 Ye, M. S. 2712  
 Ye, S. F. 4185  
 Yedoyan, R. A. 1379  
 Yeh, C. S. 2333  
 Yeh, F. C. 3636  
 Yeh, F. C. H. 9207  
 Yeh, K. C. 9040  
 Yeh, M. S. 2712  
 Yeh, S. F. 4185  
 Yeh, Y. 4167  
 Yen, C. S. 9447  
 Yen, R. W. C. 3042  
 Yeo, A. R. 8913  
 Yeoh, H. H. 6394  
 Yeoman, M. M. 6601  
 Yermanos, D. M. 5375  
 Yetter, M. A. 1872  
 Yeung, K. C. 1883  
 Yiemi, M. S. 8392  
 Yim, K. B. 6584  
 Yim, M. S. 4512, 8392  
 Yin, G. C. 4044  
 Yin, K. C. 4044  
 Yin, S. A. 9024  
 Ying, C. C. 7645  
 Yingchol, P. 2732, 11150  
 Yoder, O. C. 1690, 5582, 10495  
 Yogendra Kumar Bansal 19  
 Yokoo, M. 6153, 7190  
 Yokoyama, S. 11021  
 Yokozawa, Y. 8490  
 Yonezawa, K. 1005, 9402  
 Yong, H. S. 1660  
 Yoon, J. Y. 870  
 Yoon, K. E. 590  
 Yordanov, M. 9267, 9279  
 Yordanov, Y. 6006  
 York, D. W. 284  
 York, J. O. 1118, 3141, 4133, 5017, 5083, 5989, 7131



- Yoshida, M. 6513  
Yoshida, S. 1298, 3158, 9752, 10613  
Yoshida, T. 3114, 5453, 7427  
Yoshida, Y. 1431, 4839, 4840, 4841, 5422, 9930, 9931  
Yoshikawa, H. 6605  
Yoshikawa, R. 4081, 5024, 5025  
Yoshimura, A. 10599  
Younes, M. H. 8608  
Young, B. A. 3229, 7267, 7271  
Young, C. T. 7515, 7519  
Young, D. A. 6284, 6292, 8278  
Young, E. F., Jr. 3364, 4368  
Young, J. K. 5377  
Young, R. J. 2273, 2274, 2698, 8278  
Young, R. W. 7799  
Young, W. A. 711, 5507, 6511, 10020  
Young, W. R. 8144  
Youngman, V. E. 4171  
Youngs, V. L. 7008  
Yourman, L. F. 5613  
Youssef, G. 133  
Youssef, S. A. M. 8606  
Yu, D. N. 4786  
Yu, H. T. 3907  
Yu, M. 4989, 10458, 10465, 10513  
Yu, M. H. 3396, 5327, 5329  
Yu, S. H. 2198  
Yü, T. C. 9677  
Yu, T. N. 4786  
Yu, X. D. 3907  
Yu, Y. P. 2931  
Yu, Y. S. 2497, 6515  
Yuan, B. L. 4026, 4968  
Yuan, P. L. 4026, 4968  
Yuda, E. 10935  
Yudkina, I. B. 9490  
Yuhashi, T. 5609  
Yuldashev, B. 5295  
Yuldashev, T. I. 5285  
Yumoto, S. 8941  
Yun Son Gun 9672  
Yungen, J. A. 6205  
Yunis, H. 4655  
Yunoki, T. 387  
Yurchenko, L. A. 687  
Yurina, O. V. 7691  
Yurkova, G. N. 6930  
Yurku, A. I. 6064, 10502  
Yushev, A. A. 1453  
Yushkov, P. I. 4584  
Yusifova, S. K. 2991  
Yusufbekov, Kh. Yu. 10927  
Yusupov, B. K. 8221  
Zabavina, E. S. 6988  
Zabel, S. 8860  
Zaben'kova, K. I. 1718, 10462  
Zabirova, E. R. 1962, 4050  
Zade, V. R. 2308  
Zadina, J. 2272, 2280, 4360  
Zadoks, J. C. 4916  
Zafar-Yab, M. 6873  
Zagaja, S. W. 1439, 1440  
Zagdańska, B. 1099, 1100  
Zaginaïlo, N. N. 923, 1560  
Zagnitko, Kh. A. 247  
Zagorcheva, L. 9267  
Zagorodnyaya, L. I. 2208  
Zagórska, H. 519  
Zagorska, K. 10691  
Zagorska, N. 10782  
Zagovora, A. V. 10256  
Zahar Samsuddin 4499  
Zaheer Ahmad 7370  
Zahn, F.-G. 8401  
Zainal-Abidin, M. I. 2109  
Zaitseva, E. A. 10306  
Zajonc, I. 4466  
Zakharenko, Z. P. 7938  
Zakharov, N. V. 4231, 10621  
Zakharova, L. N. 1319  
Zaki, A. I. 7579  
Zaletilo, A. P. 748, 749  
Zambrano, O. 11171  
Zamir, D. 7708, 9268  
Zamora, M. 1207  
Zanaev, N. Ya. 2868  
Zangara, L. 1941  
Zapadaeva, T. V. 6064  
Zapata, F. J. 11047  
Zapletalová, I. 2238  
Zapruder, E. G. 9814  
Zaragoza, B. A. 2167  
Zarić, L. 5003  
Zaripov, R. G. 10872  
Zaripova, Z. 220, 3983  
Zaritskaya-Burdenyuk, S. D. 7764  
Zarrough, K. M. 5194  
Zarubailo, T. Ya. 7903  
Zary, K. W. 5667  
Zarzhnevskaya, T. G. 196  
Zat'ko, J. 1823  
Zatykó, J. M. 744  
Zatykó, L. 658  
Zavertailo, T. F. 10477  
Zaviryukha, P. D. 1302, 3327, 5260  
Zazulina, N. A. 7588  
Zbaszyniak, B. 4942  
Zbroszczyk, J. 7582, 8406  
Zdorenko, G. A. 2557  
Zdruikovskaya-Rikhter, A. I. 3620  
Żebrowski, Z. 5811  
Zedginidze, Sh. A. 2691  
Zee, S. Y. 9686  
Zehler, W. 8693  
Zekunov, A. V. 3293  
Zelenskaya, T. F. 10035  
Zelenskii, G. D. 363  
Zelenskii, M. A. 1938  
Zelenskii, M. I. 1790  
Zelitch, I. 8345  
Zeller, F. J. 5864  
Zeller, W. 1438, 1455  
Zelova, L. A. 4874  
Zende, G. K. 10357  
Zeng, F. S. 2725, 2726  
Zeng, J. Z. 2937, 3932  
Zeng, M. Q. 8823  
Zeng, S. X. 5128  
Zeng, Y. S. 4194, 9000  
Zeniščeva, L. 2042, 10520  
Zenishcheva, L. S. 10520  
Zenkteler, M. 6087  
Zentmyer, G. A. 7579  
Zeven, A. C. 1647, 1649, 3845, 5050, 7850, 7947, 10415  
Zhabina, V. A. 5798  
Zhalilov, O. F. 3340  
Zhang, B. Y. 2136  
Zhang, C. L. 8839  
Zhang, C. S. 1772  
Zhang, D. C. 343  
Zhang, G. H. 4208  
Zhang, H. 1772  
Zhang, P. F. 3475  
Zhang, Q. B. 723  
Zhang, Q. Q. 2897  
Zhang, X. Y. 2107  
Zhang, Y. L. 2136, 4196  
Zhang, Z. D. 5122  
Zhang, Z. G. 4855  
Zhang, Z. L. 2782  
Zhao, J. T. 5370  
Zhao, M. Z. 5126  
Zhao, X. Y. 723  
Zharkov, N. A. 10309  
Zhbakov, R. G. 3371  
Zhdanov, V. V. 3530, 3531, 4519, 7560  
Zhebentyaeva, T. N. 8250  
Zheleznov, A. V. 10631  
Zheleznova, N. B. 10631  
Zhemchuzhina, A. I. 10410  
Zhenenko, S. S. 3220  
Zheng, D. Z. 522  
Zheng, S. W. 4208  
Zheng, W. Z. 10465  
Zhidkova, N. I. 9225, 10984  
Zhitlova, N. A. 488  
Zhivkova, T. 6034  
Zhivotinskaya, S. M. 9959  
Zhogin, A. F. 4879  
Zhogina, V. A. 6780  
Zhong, Z. X. 2612  
Zhou, C. 3105, 4206  
Zhou, G. Y. 4193, 4194, 9000  
Zhou, J. Y. 5122, 9470  
Zhou, M. Z. 1107  
Zhou, P. S. 5122  
Zhou, S. J. 4855  
Zhou, S. M. 2937  
Zhou, T. D. 2932  
Zhou, X. C. 1703  
Zhou, Z. H. 3907, 3933  
Zhovner, A. F. 8056  
Zhu, C. 2911  
Zhu, Y. S. 7443  
Zhu, Z. C. 2816, 9855  
Zhu, Z. H. 522  
Zhu, Z. Q. 1113, 1802, 3988  
Zhu, Z. Y. 4044  
Zhuang, J. J. 2937  
Zhuchenko, A. A. 823, 891, 893, 894, 895, 897, 899, 905, 1555, 1556, 3710, 4638, 4639, 4806, 6657  
Zhuk, V. Yu. 3317  
Zhukov, O. S. 2487, 2493, 3619, 5782  
Zhukov, V. I. 5916, 6859  
Zhukova, N. M. 4746, 10175  
Zhukovskaya, R. A. 2208, 3260  
Zhuraev, K. 3369  
Zhuravel', A. M. 7620, 10879  
Zhurbina, N. S. 2649  
Zhurova, O. N. 8461  
Zhyaunete, V. I. 1676  
Zia, I. 1107  
Zia-ud-Din Ahmad 161, 1073, 2887, 3901, 3934, 5709, 6932, 6992, 8779, 10320  
Ziauddin Ahmad 161, 1073, 2887, 3901, 3934, 5709, 6932, 6992, 8779, 10320  
Zickler, D. 8355  
Zidan, M. A. 5642  
Ziegenbein, G. 2241  
Zielińska, L. 2276  
Zijlstra, S. 4646  
Ziliotto, U. 2671  
Zillinsky, F. 9497  
Zillinsky, F. J. 1885  
Zillman, R. 10340  
Zima, K. I. 4056  
Zimin, A. N. 450  
Zimina, T. K. 2995  
Zimmerman-Gries, S. 2660  
Zimmerman, R. H. 4504  
Zimmermann, G. 5967  
Zimniak-Przybylska, Z. 8619  
Zin-Suh Kim 6579  
Zinchenko, S. A. 10807  
Zink, F. 1037  
Zink, F. W. 5602, 5603, 8528  
Zinno, Y. 7650  
Zinsly, J. R. 10442  
Zirnstein, G. 1666  
Zitelli, G. 1850, 1860, 1865, 1866, 2873, 2964, 3959  
Ziv, O. 6970, 10366  
Zlokolicá, M. 7048  
Zobel, B. 8457  
Zobel, R. W. 11121  
Zolotukhin, E. N. 1180  
Zong, J. H. 5126  
Zope, R. E. 2408, 8365  
Zorn, C. 822  
Zorrilla-Gonzalez, H. L. 10425  
Zotochkina, T. V. 6472  
Zotov, V. V. 6557  
Zotova, Z. S. 10916  
Zou, M. Q. 1772  
Zou, M. W. 1786  
Zou, S. Y. 2897  
Zoz, N. N. 2393, 7926  
Zschoche, K.-H. 5774  
Zsombor, F. 4588  
Zu, D. M. 4195  
Zu, Z. Y. 1786  
Zubal, P. 1257  
Zubareva, L. M. 793  
Zuber, M. S. 286, 1926, 4068, 6025, 7074, 8063, 10433  
Zuberi, M. I. 8361  
Zuberi, S. 8361  
Zubov, A. A. 756, 10851  
Zubov, A. E. 4712, 10157  
Zuev, V. F. 7532  
Zueva, G. V. 4253  
Zuidgeest, J. H. M. 2606, 3660  
Zummo, N. 10590  
Zuo, Q. X. 4208  
Zuparov, M. 4540  
Zur, M. 1651, 3372  
Zvereva, V. F. 10477  
Zweep, F. van der 3700  
Zweifel, T. R. 11149  
Zwet, T. van der 4521  
Zwierzykowski, Z. 5182, 7235  
Zwintzsch, M. 1428  
Zych, M. 7967, 7968  
Zykin, V. A. 2929, 3926, 3945, 10294  
Zykova, S. I. 5906  
Zyl, H. J. van 10856  
Zyryanova, A. F. 6859



# SUBJECT INDEX

## *Abelmoschus* (see *Hibiscus*)

### *Abies*

- altitude 4596, 7646
- breeding, Georgian SSR 5512
- chromosomes, morphology 5531
- cone, colour 4596
- geographical races, review 817
- geography 7646
- leaf 7646
- multivariate analysis 7646
- provenance trials
  - German Federal Republic 817
  - Kazakh SSR 4595, 8474
- selection, natural 4596

### Abscission

- Citrus* 6518
- Citrus*, orange 4537
- Glycine* 3756, 10144
- Vigna*, cowpea 1637

### *Acacia*, genetic resources 2182

### *Acalymma*, *Cucurbita* 11020

### *Acantholyda*, *Pinus* 5538

### *Acaulospora*, *Nicotiana* 10788

### *Acca*

- chemicals, general effects
  - N*-nitroso-*N*-ethylurea 764, 1486
  - N*-nitroso-*N*-methylurea 764, 1486
- chemicals, mutagenic effects
  - N*-nitroso-*N*-ethylurea 10216
  - N*-nitroso-*N*-methylurea 10216
- development and growth 10215
- $\gamma$  rays 2465, 2814
- genetic resources 10849
- height 2465
- leaf, anatomy 1486
- mutation, induced 2465, 10216
- review 2814
- quality 10215
- quality, for storage 10215
- sterility and fertility 764

### Accessory chromosomes (see Chromosomes, accessory)

### *Acer*

- cell culture 8471
- chemicals, general effects, 2,4-D 8471
- chromosomes, number 7848
- ecotypes 2563
- habit 804, 9187
- leaf, colour 804
- leaf, shape 9187
- leaf, size 9187
- pathology 7628
- photoperiodism 2563
- provenance trials
  - USA 804
  - USSR 1505
- taxonomy 2574
- tissue culture 802
- variety trials, USA 9187

### *Aceria*, *Triticum* 7970

### *Achras*

- chemicals, as plant constituents
  - acids 4562
  - sugar 4562
  - tannin 4562
- fruit, colour 4562
- fruit, shape 7604
- quality, for fresh consumption 7604

### *Acremonium*, *Zea*, maize 3078, 9588

### *Acrocylindrium*, *Oryza* 2164, 6180, 8206, 8208, 9704

### *Acrosternum*, *Glycine* 2738, 10153

### *Actinidia*

- fertilization, sexual 2538
- gynecium 2538
- pollination 2538
- sex 2536
- tissue culture 2536, 9151
- varieties, Italy 6477

### *Actinomyces* (see also *Streptomyces*)

### *Acyrtosiphon*

- Medicago* 456, 457, 3241, 3242, 5224, 6256, 6258, 8259
- Pisum* 6789

### Adaptability (see Stability)

### *Adoxophyes*, *Pyrus* 3541

### *Aegilops*

- aneuploidy 1069
- anther, length 7973
- chemicals, as nutrients, phosphorus 5904

### *Aegilops* contd.

- chemicals, as plant constituents
  - alcohol dehydrogenase 1087, 9495
  - aminoacids 7930
  - aspartate aminotransferase 9495
  - carotenoids 143
  - chlorophyll 143
  - enzymes 3955
  - esterase 185, 6964, 7975
  - gliadin 7943
  - gluten 7943
  - glutenin 7943
  - nucleic acids 5806, 8729
  - peroxidase 1791
  - phosphatase 5904
  - prolamin 6923
  - protein 4844, 6923, 7912, 7974
  - quinones 8699
- chemicals, general effects, chlormequat 5811
- chloroplasts 8699
- chromosomes, morphology 5938, 8738
- chromosomes, morphology, technique 210
- cleistogamy 7973
- cytoplasm 10394
- cytoplasmic inheritance 10394
- fertilization, sexual 7971
- flowering 7973
- gene location 4844, 6923
- genetic resources 1733
- genetics
  - enzymes 3955
  - esterase 6964
  - peroxidase 1791
  - Puccinia* 3877
  - Schizaphis* 9492
- genome analysis 185, 1780, 6923, 7911, 7912, 9495
- haploidy 1069
- heat and drought resistance 1723, 4886
- history and evolution 6964, 7972, 7974, 7975, 8729, 9495, 9496, 10209
- hybridization, interspecific 1873, 7971
- leaf, anatomy 9496
- maternal effects, nucleic acids 8729
- meiosis 1069, 1873, 7866
- molecular genetics 5806, 8729
- multiple alleles 3955
- multivariate analysis 7930
- nucleus 7866
- photorespiration 143
- photosynthesis 143, 1723
- pollination 7973
- polyembryony and twinning 1069
- polyploidy 1746, 9495
- Pseudocercospora* 10370
- physiological races 5817, 5818
- Puccinia* 3877
- quality, for milling and baking 7943
- root, number 1746
- Schizaphis* 9492
- seed, weight 1746
- sterility and fertility 7971
- sterility, self 7973
- taxonomy 3955, 7974, 9496
- tissue culture 7931
- water balance 1723

### *Aegilops* $\times$ *Secale*

- hybridization, intergeneric 5974

### *Aegilops* $\times$ *Triticum*

- andrecium 1775
- asynapsis 7919
- back crossing 7915
- chemicals, as plant constituents
  - chlorophyll 10308
  - gliadin 3906
  - glutenin 9389
  - protein 1767
- chloroplasts 1767
- chromosome translocation 126
- chromosomes, accessory 3913
- chromosomes, addition and substitution 107, 5872, 10308
- cold resistance 1067
- cytoplasmic inheritance 107, 109, 1767, 1775, 1873, 3899, 5872, 7897
- growth period 8728
- meiosis 10394

### *Aegilops* $\times$ *Triticum* contd.

- cytoplasmic inheritance contd.
  - spring and winter habit 8728
  - sterility and fertility 10394
  - vernalization 8728
- development and growth 1067
- Erysiphe* 10308
- genetics
  - asynapsis 7919
  - meiosis 7919
- genome analysis 1780, 3913, 6923
- growth period 1775, 8728
- height 109, 1775
- hybridization, intergeneric 107, 108, 109, 126, 185, 1067, 1767, 1775, 1780, 1820, 1873, 1886, 3899, 3906, 3913, 3915, 4856, 5872, 6923, 7897, 7908, 7915, 7919, 7931, 7972, 8728, 9389, 9492, 10308, 10370, 10394
- internode, number 109
- internode, size 109
- leaf, size 10308
- lodging 1067
- meiosis 1780, 1873, 3913, 3915, 7919, 10394
- Pseudocercospora* 10370
- Puccinia* 10308
- Schizaphis* 9492
- seed, number 1067
- spring and winter habit 8728
- sterility and fertility 1067, 5872, 7908, 10394
- sterility, male 1775
- sterility, male, cytoplasmic 107
- tillering 1067, 1775
- tissue culture 7931
- vernalization 8728

### *Aesculus*

- chemicals, as plant constituents, starch 2573
- polyembryony and twinning 5782
- taxonomy 2573

### *Agaricus*

- genetics, sterility and fertility 1518
- heterocaryosis 1518
- multiple alleles 1518
- nucleus, number 1518
- sterility and fertility 1518

### *Agave*

- hybridization, interspecific 10744
- spines 10744

### *Agelaius*, *Sorghum* 5083

### Aging of seeds, *Hordeum* 8102

### *Agrobacterium* 1620

- Nicotiana* 10199
- physiological races 6412
- Raphanus* 845
- transformation 5788
- Vitis* 10014
- physiological races 10938

### Agronomy

- Bromus*, review 9730
- Festuca*, book 7255
- Oryza*
  - review 1229
  - symposium 3157
- Triticum* 190

### Agropyron

- aneuploidy 3231
- breeding
  - Kazakh SSR 8221
  - USSR 3205, 9740
- chemicals, as plant constituents
  - alcohol dehydrogenase 8950
  - $\beta$ -amylase 8950
  - prolamin 6923
  - protein 6923, 7911, 8247, 8949
- chemicals, general effects
  - aluminium 7869
  - chlormequat 5811
- chromosomes, morphology 125
- chromosomes, number 3230
- gene location 6923
- alcohol dehydrogenase 8950
- $\beta$ -amylase 8950
- protein 7911
- genetics, *Puccinia* 3877
- genome analysis 2203, 2204, 3230, 3232, 4271, 5199, 6923, 7268, 7269, 7911, 8246, 8247, 8949, 9742



**Agropyron contd.**

- heat and drought resistance 1723, 6233, 8245
  - height 4271
  - heritability, yield components 8245
  - heterosis 2201
  - history and evolution 10209
  - hybridization, interspecific 428, 2201, 2202, 3230, 3232, 4271, 6234, 7268, 7269, 7911, 8246
  - immunology 8949
  - leaf, anatomy 4242
  - meiosis 2203, 2204, 3230, 3231, 3232, 4271, 5199, 7268, 7269, 8246, 9742
  - mixtures of crops or genotypes 2201
  - morphology 4242
  - outcrossing 2201
  - photosynthesis 1723
  - pollen 9408
  - polyploidy 428, 2201, 2203, 2204, 3230, 4271, 7911, 8246, 8949, 9408, 9742
  - Pseudocercospora*, physiological races 4827, 5817, 5818
  - Puccinia* 3877
  - quality, for nutrition 2202
  - stem 4242
  - sterility and fertility 428, 3230, 8246
  - sterility, male, cytoplasmic 6234
  - stomata, number 9408
  - stomata, size 9408
  - synthetic varieties 6233
  - taxonomy 3232
  - toxic soils 7869
  - varieties
    - Canada 6233
    - USSR 2183
  - water balance 1723
  - yield components 8245
- Agropyron × Elymus**
- genome analysis 7269
  - hybridization, intergeneric 7269, 9741
  - meiosis 7269, 9741
  - sterility and fertility 9741
- Agropyron × Hordeum**
- chromosomes, elimination 2025
  - hybridization, intergeneric 2025, 5199
  - meiosis 2025, 5199
- Agropyron × Secale**
- hybridization, intergeneric 230
  - sterility and fertility 230
- Agropyron × Secale × Triticum**
- aneuploidy 10299
  - anther 10299
  - hybridization, intergeneric 10299
  - meiosis 10299
  - sterility and fertility 10299
- Agropyron × Sitanion**
- genome analysis 7269
  - hybridization, intergeneric 7269
  - meiosis 7269
- Agropyron × Triticum**
- aneuploidy 1072, 2895, 2903, 2904, 4851, 10307
  - chemicals, as plant constituents
    - alcohol dehydrogenase 8950
    - $\beta$ -amylase 8950
  - chemicals, mutagenic effects, ethyl methanesulphonate 5854
  - chromosome translocation 126, 1776, 4850, 10307
  - chromosomes, aberrations 2895
  - chromosomes, addition and substitution 164, 1072, 2894, 3904, 4850, 8950
  - chromosomes, morphology 125
  - cold resistance 164, 2860, 2896, 3904
  - crossing over 2891
  - electrical properties 164
  - gene location
    - alcohol dehydrogenase 8950
    - $\beta$ -amylase 8950
  - genome analysis 6923
  - haploidy 2894, 2895
  - height 123, 1776
  - heritability 123
  - hybridization, intergeneric 116, 117, 118, 122, 123, 125, 126, 154, 164, 203, 1064, 1072, 1772, 1776, 2860, 2891, 2894, 2895, 2896, 2903, 2904, 3904, 3908, 4850, 4851, 5854, 6865, 6923, 7969, 7970, 8733, 8735, 8950, 10307
  - review 1770
  - inflorescence 122, 154

**Agropyron × Triticum contd.**

- meiosis 1772, 2891, 2895, 2903, 2904, 4851, 10307
  - mutation 122, 6865
  - mutation, induced 5854
  - nematodes 8733
  - polyploidy 1772, 2903, 2904
  - Puccinia* 4850, 10307
    - physiological races 203
  - seed, number 122
  - seed, size 122
  - seedlings 1776
  - sterility and fertility 116, 2895
  - yield components 123
- Agrostis**
- breeding, Czechoslovakia 1669
  - chemicals, as plant constituents
    - aminoacids 6214
    - chloride 6214
    - glycinebetaine 6214
    - potassium 6214
    - sodium 6214
  - chemicals, general effects
    - copper 2184, 7240, 9726, 9727
    - lead 2184, 9726, 9727
    - sulphur dioxide 7226
    - zinc 2184, 9726, 9727
  - Cochliobolus* 2191
  - cold, effect of 7226
  - development and growth 4240
  - ecotypes 6214
  - height 7226
  - Helminthosporium* 2185
  - lawns and sports turf 2185, 7226, 8228
  - leaf 4240
  - mixtures of crops or genotypes 8228
  - pollution, atmospheric 7226
  - Puccinia* 2185
  - root 4240
  - salinity 6214
  - soil pH 2184
  - taxonomy 5170
  - toxic soils 2184, 9726, 9727
  - varieties
    - Czechoslovakia 3855
    - Poland 52
    - variety trials, UK 7226
    - water balance 6214
- Agrotis, Solanum, potato** 9795
- Albizzia**, chromosomes, number 10228
- Albugo**
- Brassica*, oil crops 9060
  - physiological races, USA 633
  - Raphanus* 2588
  - Spinacia* 7675
- Alder (see Alnus)**
- Aleyrodes, Brassica, cabbage** 6620
- Alfalfa (see Medicago)**
- Alleles (see Genetics)**
- Alleles, multiple (see Multiple alleles)**
- Allium, chives**
- chromosomes, accessory 10051, 10052
  - leaf 10053
  - protoplasts 2597
  - yield components 10053
- Allium, garlic**
- aneuploidy 5562
  - breeding, technique 7662
  - cell division 6831
  - chemicals, as plant constituents
    - carbohydrates 9237
    - sugar 9237
  - chemicals, cytological effects, superphosphate 6831
  - chemicals, fertility and sex, effects, tetracycline 8513
  - chromosomes, aberrations 5562, 6831
  - chromosomes, breakage 5562
  - $\gamma$  rays 6612
  - meiosis 1527
  - mixoploidy 5562
  - pollen 8513
  - polyploidy 5562
  - quality, for storage 6612, 9237
  - selection, artificial 7663
  - sowing and planting date 6611
  - sterility, male 8513
  - tissue culture 5562
  - varieties, Ukrainian SSR 7665
  - variety trials
    - S. Korea 6611
    - Ukrainian SSR 7665

**Allium, leek**

- breeding, German Democratic Republic 2604
- chemicals, fertility and sex, effects, GA 10972
- Glomerella* 4609
- growth period 2604
- harvesting, mechanical 2604
- heterosis 849
- sterility, male 10972
- variety trials, Denmark 7664
- viruses 6613, 10972
- yield components 849

**Allium, minor species**

- chemicals, as plant constituents, calcium oxalate 5559
- chemicals, cytological effects
  - ethyleneimine 10993
  - N*-nitroso-*N*-methylurea 10993
- chromosomes, aberrations 10992, 10993
- chromosomes, morphology 3658, 4612
- chromosomes, number 3861, 4612
- $\gamma$  rays 10992
- laser beams 10992, 10993
- nucleolus 3658
- taxonomy 4612
- variety trials, USSR 5561

**Allium, minor species × Allium, onion**

- chemicals, as plant constituents, nucleic acids 5722
- cold resistance 8507
- hybridization, interspecific 5722, 8507
- Peronospora* 8507
- polyploid sterility and fertility 8507
- polyploidy 8507
- sterility and fertility 8507

**Allium, onion**

- Alternaria* 10990, 10991
- andrecium, anatomy 6849
- anther 1015
- bolting 6609
- breeding, Brazil 7660
- bulb 847, 5560, 8511
- bulb, colour 4611, 8510
- bulb, size 5555
- bulb, weight 8512
- cell division 846, 2784, 2785, 5740
- chemicals, as plant constituents
  - calcium oxalate 5559
  - carbohydrates 2600
  - fructans 2600
  - heterochromatin 10049
  - nitrogen 2602
  - nucleic acids 10049
  - phenols 9235
  - pyruvic acid 2602, 9235
  - starch 8668
  - sugars, reducing 2602, 9235
- chemicals, cytological effects
  - acetylsalicylic acid 5740
  - 5-aminouracil 10050
  - 5-bromodeoxyuridine 2784, 9351
  - caffeine 10050
  - chlorflurecol 2785
  - 2,4-D 19
  - ethyl methanesulphonate 19
  - IAA 3655
  - Tamarindus* extract 5741
  - trifluralin 1008
- chemicals, fertility and sex, effects, GA 10972
- chemicals, general effects
  - ethephon 2601
  - MH 7814
- chemicals, mutagenic effects
  - 1,4-bis(diazoacetyl)butane 8510
  - dimethyl sulphate 8510
  - ethyleneimine 8510, 9234
  - N*-nitroso-*N*-dimethylurea 8510
  - N*-nitroso-*N*-ethylurea 8510, 9234
- chromatids 2784, 9351, 10050
- chromosome translocation 2785
- chromosomes, aberrations 19, 824, 2785, 3655, 5740, 5741, 7814, 10050
- chromosomes, morphology 8508, 10049
- chromosomes, morphology, technique 2782, 3823
- cold, effect of 3655
- cold resistance 6609
- crossing over 9351, 10050
- Delia* 10972
- density of stand 3656
- Ditylenchus* 4611



**Allium, onion contd.**

- embryo culture 4607
  - flowering 4606
  - foliage area 9234
  - genetic resources 2594
  - Glomerella* 4609
  - growth period 3656, 6609, 8509
  - heritability 2603
  - heterosis 5558, 6607
  - hybrid varieties 8497, 8506, 10046
  - hybridization 5558
  - hybridization, interspecific 4607, 10972
  - molecular genetics 10049
  - mutation, induced 8510
    - foliage area 9234
    - photosynthesis 9234
  - nucleolus 8508, 10049
  - outcrossing 4606
  - photoperiodism 5560, 6608, 8509
  - photosynthesis 7661, 9234
  - polyploidy 19, 1008, 5560, 7661
  - Pyrenochaeta*, technique 8512
  - quality 6609
  - quality, for drying 9235
  - quality, for food processing 8511
  - quality, for storage 2602
  - Sclerotinia* 10972
  - Sclerotium* 4608
  - seed production 848, 2603
  - selection, artificial 2603
  - sowing and planting date 1526, 2601, 6610
  - sterility, male 1015, 6849, 8668, 10972
  - sterility, male, cytoplasmic 5558, 6607, 8668
  - storage of planting material 848
  - synthetic varieties 10047
  - temperature, effect of 848, 6608
  - tissue culture 5560
  - Urocystis* 4610
  - varieties
    - Belorussian SSR 5556
    - UK 8506, 9233, 10046, 10047, 10048
    - USA 8497
  - varieties, classification 5559
  - variety trials
    - Belorussian SSR 5555
    - Pakistan 6606
    - Puerto Rico 10989
  - vascular tissue 1015
  - vernalization 8509
  - viruses 824
- Allium, onion × Allium, minor species,**  
hybridization, interspecific 5722, 8507
- Allium, onion × Allium, shallot**  
bulb, colour 5557  
habit 5557  
heterosis 5557  
hybridization, interspecific 5557
- Allium, shallot**  
breeding, French West Indies 3657  
varieties, USSR 9236  
variety trials, USSR 5561
- Allium, shallot × Allium, onion,**  
hybridization, interspecific 5557
- Allopolyploidy (see Polyploidy)**
- Almond (see Prunus, almond)**
- Alnus**  
altitude 2563  
chemicals, as nutrients, nitrogen 3630  
chemicals, as plant constituents  
  nitrogen 3630  
  nitrogenase 3630  
chemicals, mutagenic effects,  
  miscellaneous 9174  
development and growth 3630  
ecotypes 2563  
hybridization, interspecific 8466  
leaf, shape 8466  
leaf, size 8466  
mutation, induced, book 9174  
nitrogen fixation 3630  
photoperiodism 2563
- Aloe**  
chromosomes, morphology 4497  
polyploidy 4497
- Alopecurus**  
chromosomes, accessory 5154  
meiosis 4273  
polyploidy 4273
- Alsike clover (see Trifolium, Alsike clover)**
- Alternaria**  
*Allium, onion* 10990, 10991

**Alternaria contd.**

- Apium* 11003
  - Brassica* 5575
  - Brassica*, oil crops 9059
  - Brassica*, rape 6437
  - Carthamus* 2427
  - Daucus* 835
  - Helianthus*, sunflower 2422, 7495
  - Lycopersicon* 915, 920, 2639, 4637, 4656, 6664, 9280
  - Nicotiana* 4443
  - Oryza* 8202
  - Panicum* 1176
  - Pinus* 4590
  - Rubus*, raspberry 9979
  - Solanum*, egg plant 6671
  - Solanum*, potato 5258, 5259, 6311, 6327, 8982
  - Sorghum* 1193, 4160
  - Triticum* 3963, 6976, 8760, 8761
- Alternaria, technique, Nicotiana** 2378
- Althaea × Gossypium**, hybridization,  
  intergeneric 2292
- Altitude**  
*Abies* 4596, 7646  
*Alnus* 2563  
*Avena* 7986  
*Bromus* 3220  
*Chloris* 3213  
*Coffea* 9048  
*Fagopyrum* 6196  
*Fagus* 8464  
*Festuca* 9736  
*Gossypium* 4368  
*Hordeum* 8671, 9410  
*Linum* 9410  
*Lolium* 2195  
*Lotus* 5238  
*Lycopersicon* 10080  
*Picea* 4592  
*Pinus* 5534, 8483, 9199, 10032, 10035, 10957  
*Poa* 2188  
*Prunus*, cherry 9946  
*Pseudotsuga* 818, 6595  
*Solanum*, potato 2264, 6322  
*Triticum* 169, 3919, 9453  
*Zea*, maize 1120, 8018
- Amanita, Betula** 4585
- Amaranthus**  
breeding 930  
chemicals, as plant constituents  
  acid phosphatase 6198  
  alcohol dehydrogenase 6198  
  calcium 8568  
  enzymes 6199  
  esterase 6198  
  glutamate oxaloacetate transaminase 6198  
  iron 8568  
  leucine aminopeptidase 6198  
  magnesium 8568  
  manganese 8568  
  nitrogen 8568  
chemicals, mutagenic effects  
  diethyl sulphate 1564  
  ethyl methanesulphonate 1564  
chromosomes, number 930  
development, abnormal 1564  
fasciation 1564  
γ rays 1564  
genetic resources 2594, 4662, 6855  
genetics  
  inflorescence, colour 6199  
  seed 6199  
germplasm banks  
  Hungary 2181  
  Peru 6855  
inflorescence, colour 6199  
leaf, shape 1564  
mutation, induced 1564  
seed 2661, 6199  
taxonomy 930  
yield components 2661, 6199
- Amelanchier**  
chromosomes, number 766  
hybridization, interspecific 766  
polyploidy 766  
taxonomy 766
- Amitosis, Triticum** 4857
- Amphorophora, Rubus, raspberry** 2521, 3499, 4548, 5795, 9413, 10902, 10906

**Amphorophora, technique, Rubus, raspberry** 5470**Amrasca**

- Gossypium* 2314, 5310, 8304, 10725
- Gossypium* × *Hibiscus* 7379
- Helianthus*, sunflower 3474

**Amygdalus, almond (see Prunus, almond)****Amygdalus, nectarine (see Prunus, nectarine)****Amygdalus, peach (see Prunus, peach)****Anacardium**

- breeding, India 3621, 3622
- Helopeltis* 37
- pollination 37

**Ananas**

- chemicals, as plant constituents  
  acids 2533  
  sugar 2533
- fruit, shape 2533
- fruit, weight 2533
- Gibberella*, technique 1481
- heritability 2533
- leaf, number 2533
- quality, for canning 2533, 7598
- seedlessness 2467
- varieties, Venezuela 4558
- varieties, classification 5484
- variety trials, Brazil 7598

**Anastrepha, Manihot** 4796**Anatomy**

- Eleusine* 6119
- Eucalyptus* 8469
- Fagus* 5521
- Festuca*, review 7256

**Ancylostoma, Atylosia × Cajanus** 6815**Andrecium (see also Anther)**

- Aegilops* × *Triticum* 1775
- Beta*, sugar beet 6390
- Fragaria* 757, 7593
- Gossypium* 4380
- grasses 10626
- Lycopersicon* 901
- Lycopersicon* × *Solanum* 901
- Nicotiana* 5340
- Oryza* 3186
- Triticum* 1788, 2899
- Vulpia* 3235
- Zea*, maize 6036

**Andrecium, anatomy**

- Allium*, onion 6849
- Beta* 6849
- Capsicum* 6849
- Cucumis*, melon 6849
- Cucurbita* 6849
- Datura* 6849
- Oryza* 8174
- Ranunculus* 6849
- Sesamum* 6849
- Triticum* 6849

**Andrecium, colour, Zea, maize** 10434**Andrecium, size, Fagopyrum** 1241**Androgenesis, Zea, maize** 9538**Andropogon**

- heritability  
  seed production 10646  
  yield components 10646
- seed production 10646
- yield components 10646

**Anethum**

- growth period 3799
- sterility and fertility 3799

**Aneuploidy** 5734, 9349, 9387

- Aegilops* 1069
- Agropyron* 3231
- Agropyron* × *Secale* × *Triticum* 10299
- Agropyron* × *Triticum* 1072, 2895, 2903, 2904, 4851, 10307
- Allium*, garlic 5562
- Anthyllis* 5240
- Avena* 4823, 5956, 5957, 5958
- Beta*, sugar beet 575, 2351, 6382, 6383, 10765, 10766
- Brassica*, cabbage × *Raphanus* 3660
- Brassica*, rape 1396, 3454, 10810
- Brassica* × *Raphanus* 1531, 3660
- Brassica*, sprouting broccoli 1544
- Brassica*, swede × *Brassica*, turnip 481
- Cajanus* 5713
- Camellia* 9406, 9869
- Capsicum* 58, 1417, 8379
- Carthamus* 5389
- Citrus*, lemon 2503, 3576
- Citrus*, mandarin 2503



**Aneuploidy contd.**

- Citrus*, orange 2503  
*Coffea* 9874  
*Corchorus* 4400, 7401  
 crop plants 60  
*Erianthus* × *Saccharum* 7416  
*Euchlaena* × *Zea*, maize 243  
*Fagopyrum* 8926  
*Festuca* 7257  
*Festuca* × *Lolium* 3223, 5182  
*Fragaria* 676  
*Glycine* 58, 3754, 8601  
*Gossypium* 3355, 4371, 5291, 6344  
*Hordeum* 1045, 2022, 2023, 2026, 2049, 4092, 5032, 7088, 7097, 7098, 8085, 8100, 8101, 8107, 8110, 8835, 9604, 9605  
*Hordeum* × *Secale* 1045, 8099  
*Hordeum* × *Triticum* 1774, 7865  
*Linum* 8311, 9012, 9013  
*Lolium* 9731  
*Lotus* 10678  
*Lycopersicon* 58, 898  
*Malus* 2475, 9105  
*Nicotiana* 2369, 5344, 5346, 6405, 6411, 8340, 8342, 10782  
*Oryza* 9679, 10594  
*Panicum* 320  
*Pennisetum* 2066, 2067, 2068, 2069, 10561  
*Pisum* 6675, 6782  
*Raphanus* 9231  
*Ribes*, black currant × *Ribes*, gooseberry 676  
*Secale* 7016, 10416  
 book 231  
*Secale* × *Triticum* 199, 10301  
*Secale* × *Triticum*, triticales 3986, 6997, 7978, 8776  
*Solanum* 2456  
*Solanum*, potato 6303, 6314  
*Sorghum* 7137  
*Stenotaphrum* 5203  
*Trigonella* 4315, 10682  
*Triticum* 58, 133, 135, 178, 199, 201, 1778, 1781, 1782, 1783, 1785, 1786, 1792, 1795, 1796, 1802, 1852, 2884, 2895, 2903, 2904, 2906, 2915, 2916, 2922, 3911, 4844, 4857, 4865, 5845, 5847, 5865, 5866, 5867, 5869, 5871, 5879, 6942, 7892, 7893, 7895, 7896, 7901, 7916, 7917, 7942, 7963, 8725, 8727, 8736, 8748, 9387, 9471, 10298, 10309, 10381, 10385  
 review 1071, 7852  
*Vigna*, cowpea 6675  
*Zea*, maize 58, 251, 1947, 1954, 3031, 3035, 4987, 4988, 5990, 6019, 8030, 8034, 9550

**Aneuploidy, technique**

- Nicotiana* 2370  
*Zea*, maize 6018

**Aniseed (see Pimpinella)****Annual habit**

- Lathyrus* 1293  
*Medicago* 8257  
*Oryza* 7205  
*Trifolium* 4292

**Anomis, Gossypium** 9008**Anther**

- Agropyron* × *Secale* × *Triticum* 10299  
*Allium*, onion 1015  
*Beta* 1015  
*Beta*, sugar beet 10768  
*Capsicum* 1015, 9091  
*Cucurbita* 1015  
*Datura* 1015  
*Salvia* 11194  
*Secale* 234  
*Secale* × *Triticum*, triticales 13  
*Sesamum* 1015  
*Solanum*, egg plant 1015  
*Trifolium* 10669  
*Triticum* 13, 1015, 5890  
*Zea*, maize 1131, 6042

**Anther, anatomy**

- Helianthus*, sunflower 2414  
*Hordeum* 8851

**Anther, colour**

- Brassica* 1533  
*Cajanus* 2797  
*Gossypium* 5308  
*Lolium* 6221

**Anther, colour contd.**

- Secale* 10419  
**Anther culture** 1629  
*Arachis* 648, 5393  
*Asparagus* 5563  
*Atropa* 1680, 6848, 7528  
*Brassica*, cabbage 2612, 7670  
*Brassica*, Chinese cabbage 3679  
*Brassica*, oil crops 7484  
*Brassica*, rape 1400, 3454, 4463, 9409  
*Cajanus* 5713  
*Camellia* 10798  
*Capsicum* 653, 9906  
 cereals 8695  
*Citrus* 4536  
 crop plants 1674, 9357, 9359, 9360  
 review 2815, 9355, 9356, 9358  
 symposium 8667  
*Datura* 660, 7819, 9350  
*Festuca* 426, 5155, 5193  
*Gossypium* 7370, 9002  
*Hevea* 9099  
*Hordeum* 1016, 1150, 1151, 3105, 6087, 8105, 8696  
*Hyoscyamus* 661  
*Ipomoea* 523  
*Lolium* 5155  
*Lotus* 10678  
*Lycopersicon* 3708, 4644, 7708, 8547  
*Nicotiana* 1376, 1377, 1680, 2365, 2373, 2376, 2379, 3423, 3427, 3434, 3435, 4436, 4439, 4440, 4441, 5352, 5353, 6405, 6406, 6413, 6848, 7442, 7448, 7452, 8330, 8342, 8344, 9037, 9854, 9860, 10784, 10790, 10794, 10812  
*Oryza* 355, 366, 1221, 2146, 2147, 3185, 4197, 4208, 5761, 5762, 6151, 6152, 7191, 8165, 8177, 8695, 8696, 8697, 8904, 9670, 9671, 9672, 9673, 9674, 9675, 9676, 9677, 9678, 9679, 9680  
 review 2815  
*Pennisetum* 9632  
*Petunia* 6848  
*Physalis* 7602  
*Populus* 10026  
 review 7815  
*Saccharum* 7413, 7415, 7417  
*Secale* 1016, 3022, 8696, 9409  
*Secale* × *Triticum*, triticales 221, 3988, 3989, 5947, 8695  
*Solanum* 7603  
*Solanum*, egg plant 653, 1562, 2659, 9284  
*Solanum*, potato 4326, 5252, 7328, 8284, 9409  
*Sorghum* 4141  
 symposium 7816  
*Triticum* 1786, 1802, 2937, 3930, 3932, 3937, 8695, 8697, 8743, 8744  
*Zea*, maize 1113, 1967, 4044, 4968, 4985, 4987, 4988, 4989, 6037, 8695, 8813, 8814, 10465

**Anther, length**

- Aegilops* 7973  
*Oryza* 9692

**Anther, size**

- Lycopersicon* 3709  
*Oryza* 10601  
*Secale* 10419

**Anthesis (see Flowering)****Anthonomus, Gossypium** 1352, 2315, 6361**Anthoxanthum**

- chemicals, as plant constituents  
 acid phosphatase 3234, 4246  
 esterase 3234  
 glutamate oxaloacetate transaminase 3234  
 chemicals, general effects, zinc 4246  
 inbreeding 3234  
 sterility and fertility 3234  
 sterility, self 3234  
 toxic soils 4246

**Anthyllis**

- aneuploidy 5240  
 chromosomes, aberrations 4316  
 chromosomes, morphology 5240  
 chromosomes, number 4316, 5240  
 history and evolution 5240  
 polyploidy 4316, 5240  
 taxonomy 4316

**Aphanomyces**

- Beta*, sugar beet 574  
*Pisum* 3776

**Aphanomyces contd.**

- Pisum* contd.  
 physiological races, USSR 4754  
**Aphanomyces, technique, Pisum** 11077, 11078

**Aphelenchoides, Oryza** 2171, 6191**Aphelenchoides, technique, Oryza** 6192**Aphids**

- Brassica*, turnip 851  
*Fragaria* 677  
*Medicago* 5208  
*Prunus*, cherry 677  
*Prunus*, plum 677  
*Ribes*, black currant 677  
*Rubus*, raspberry 677  
*Solanum*, potato 9796

**Aphis**

- Arachis* 2795  
*Beta*, sugar beet 9413  
*Cucumis*, cucumber 3693  
*Cucumis*, melon 5605, 11012  
*Cucurbita* 3693  
*Gossypium* 533  
*Lycopersicon* 2653  
*Malus* 5795  
*Rubus*, raspberry 3588  
*Vicia*, broad bean 2667  
*Vigna*, cowpea 1637

**Aphis, technique, Vicia**, broad bean 2667**Apis**

- Brassica*, Brussels sprouts 7674  
*Crotalaria* 2331  
*Cucurbita* 11016  
*Helianthus*, sunflower 640, 641  
*Medicago* 1257, 8953  
*Trifolium*, red clover 1257

**Apium**

- Alternaria* 11003  
 breeding  
 Ukrainian SSR 9211  
 USSR 9209  
 cell culture 3692  
 chemicals, general effects, asulam 3692  
*Depressaria* 6632  
 mutation, induced 3692  
 varieties  
 Belgium 7679  
 UK 8522, 10064  
 variety trials, Belgium 7679  
**Apium × Petroselinum**  
 chemicals, as plant constituents  
 heptanol 10065, 11001  
 limonene 10065, 11001  
 myrcene 10065, 11001  
 oil, essential 10065, 11001  
 terpenoids 10065, 11001  
 genetics, leaf, colour 11002  
 hybridization, intergeneric 8523, 10065, 11001, 11002  
 leaf, colour 11002  
*Septoria* 8523, 11002

**Aplanobacter, Populus** 7631**Apomixis** 2803

- Beta* 1364  
*Beta*, sugar beet 10764  
*Camellia* 2392, 10213  
*Capsicum* 2586  
*Cenchrus* 3229, 7267, 7271  
*Citrus* 5451, 6517  
*Citrus*, grapefruit × *Poncirus* 717  
*Citrus*, lemon 2510, 5454  
*Citrus*, lemon × *Poncirus* 5454  
*Citrus*, mandarin 5451, 10884  
*Citrus*, mandarin × *Citrus*, orange 5451  
*Citrus*, mandarin × *Poncirus* 717  
*Citrus*, orange 5451, 5454  
*Citrus*, orange × *Poncirus* 2506  
*Coix* 5150  
 crop plants 23  
*Eremopogon* 6240  
*Euchlaena* 1129  
*Festuca* 2790  
*Ficus* 727, 7568  
*Fragaria* 2466, 7592  
*Gossypium* 5297  
 grasses 10626  
*Hordeum* 6850  
*Malus* 682, 3506  
*Nicotiana* 23, 10777  
*Panicum* 320, 10556  
*Pennisetum* 3135, 8129  
*Poa* 2186, 2790, 4234, 8231, 8232, 8233, 8936



- Apomixis** *contd.*  
*Rubus* 2466  
*Rubus*, blackberry 2466  
*Rubus*, raspberry 2466  
*Solanum*, potato 6310, 10690  
*Sorghum* 2091, 3147, 3149, 4148, 6125  
*Tripsacum* × *Zea*, maize 4019, 10445  
*Triticum* 108, 2926
- Apomixis, technique, *Mangifera*** 2514
- Apple** (see *Malus*)
- Apricot** (see *Prunus*, apricot)
- Arabidopsis* - *Brassica***  
chemicals, as plant constituents, esterase 3671  
chromosomes, aberrations 3671  
chromosomes, number 3671  
protoplast fusion 3671
- Arachis***  
anther culture 648, 5393  
*Aphis* 2795  
*Aspergillus* 2795, 6459, 7519  
*Biloba* 10831  
breeding  
India 1646  
USA 1412, 3482  
Zimbabwe 9076  
breeding, technique 2435  
cell culture 7513, 9079  
centres of origin or diversity 6456  
*Cercosporidium* 7507  
chemicals, as nutrients, nitrogen 1415, 2795, 3479, 7517  
chemicals, as plant constituents  
amino compounds 7519  
anthocyanins 2440  
arabinose 7519  
boron 9900  
calcium 9900  
chlorophyll 10237  
copper 9900  
fatty acids 8374  
linoleic acid 8374  
magnesium 9900  
manganese 9900  
nitrogenase 2795  
nucleic acids 7510, 9901  
oil, fatty 649, 6456, 8374  
oleic acid 8374  
palmitic acid 8374  
palmitoleic acid 8374  
peroxidase 7513  
phosphorus 9900  
potassium 9900  
protein 6456  
pyrazines 7515  
ribulose 1,5-diphosphate carboxylase 7511  
starch 6944  
stearic acid 8374  
sugar 6944  
tannin 6459  
volatile compounds 7515  
zinc 9900  
chemicals, fertility and sex, effects, ethephon 3478  
chemicals, general effects  
carbon dioxide 1415  
NAA 650  
chemicals, mutagenic effects  
acriflavine 5392  
ethyl methanesulphonate 1414, 5392  
chromosomes, elimination 7507  
chromosomes, number 2795  
cold resistance 2442  
cold resistance, technique 2442, 10237  
combining ability 5396, 6456  
computer simulation 4484  
cuttings 2435  
*Cylindrocladium* 3482, 5396, 8376, 10830  
cytoplasmic inheritance 5392  
density of stand 2441  
development and growth 1415, 8373  
dormancy 2435  
embryo culture 7512  
experimental designs 7506  
flower, colour 1414, 4483  
flowering 3478, 7509  
fruit, number 9899  
fruit, texture 4483  
γ rays 1414, 5392  
genetic variance 6456  
habit 9899
- Arachis* *contd.***  
genetic variance *contd.*  
yield components 10829  
genetics  
anthocyanins 2440  
flower, colour 4483  
fruit, texture 4483  
habit 4483, 5392  
hairs 4483  
peroxidase 7513  
*Rhizobium* 8375  
seed, colour 5391, 5394  
seed, variegation 5394  
stem, colour 2440, 4483  
genotype × environmental interaction 649, 2438, 4482, 7506, 9898  
germination 2442  
growth period 4485, 8373  
habit 650, 1414, 2439, 2795, 4483, 5392, 6458, 9078, 9899  
hairs 4483  
heat and drought resistance 7505  
heat and drought resistance, technique 10237  
height 1414, 6458, 7508  
heritability 3805, 4485, 5396  
heterosis 6456  
hybridization, interspecific 2795, 6457, 7507, 7512  
insects 2795  
internode, size 1414  
leaf, size 1414  
meiosis 7508  
mutation 10237  
mutation, induced 1414, 5392, 6458  
*Mycosphaerella* 1412, 1416, 2795, 3480, 3481, 7507, 9080  
*Mycosphaerella*, technique 3480  
nitrogen fixation 2795, 3479, 7517  
pathology 4486  
photosynthesis 6944, 7511  
plant introduction  
from Bolivia 9076  
from South America 9076  
to Zimbabwe 9076  
pollination, technique 7512  
polyploidy 2209, 2795, 6457, 7508, 7510  
*Puccinia* 2795, 3480, 4488, 4489, 8375  
physiological races, India 9081  
*Puccinia*, technique 3480, 9082  
*Pythium* 7518  
quality, for food processing 7514  
*Rhizobium* 3479, 7517, 8375  
physiological races 5395  
*Rhizoctonia* 4487  
*Sclerotinia* 3482  
seed 6459  
seed, colour 4483, 5391, 5394, 9076  
seed, size 7514  
seed, variegation 5394  
selection, artificial 7503  
*Spodoptera* 2831  
stability 2438  
stem, colour 2440, 4483  
stem, size 1414  
sterility and fertility 7508  
taxonomy 7516, 9901  
temperature, effect of 7509  
tissue culture 9079  
varieties  
India 2437, 4481, 8372, 9077  
Rhodesia 2813  
S. Korea 3477  
Senegal 7505  
USA 6455  
variety trials  
India 10828  
Puerto Rico 2436  
Thailand 1413  
USA 50, 3853  
USSR 630  
variety trials, technique 7504  
viruses 2795  
X rays 6458  
yield components 649, 2438, 4484, 4485, 6456, 7503, 9078, 10829
- Arctagrostis***  
*Fusarium* 5201  
polyploidy 5201  
synthetic varieties 5201  
*Typhula* 5201  
varieties, USA 5201
- Areca***, variety trials, India 36
- Argyroploce*, *Saccharum*** 571
- Arrhenatherum***  
gynecium 3233  
sterility and fertility 3233
- Artemisia***  
chemicals, as plant constituents, terpenoids 3490  
chromosomes, morphology 3488  
chromosomes, number 3488, 3861  
polyploidy 3488  
taxonomy 3488, 3490, 4498
- Artichoke** (see *Cynara*, globe artichoke; *Helianthus*, Jerusalem artichoke)
- Artocarpus***  
chemicals, as plant constituents  
carbohydrates 8435  
lipids 8435  
minerals 8435  
protein 8435
- Asclepias***  
outcrossing 7407  
pollination 7407  
sterility and fertility 7407
- Ascochyta*** (see also *Mycosphaerella*)  
*Cicer* 1606, 2796, 3791  
*Cucumis*, cucumber 2631  
*Pisum*, physiological races 3839  
*Sorghum* 7158, 7159  
*Vicia*, broad bean 4683, 6697, 6699, 11088
- Ascochyta*, technique, *Pisum*** 11078
- Ash** (see *Fraxinus*)
- Asparagus***  
anther culture 5563  
chemicals, fertility and sex, effects  
6-benzylamino-9-(tetrahydro-2-pyryl)-purine 5564  
GA 5564  
glucose 5564  
genetics, sex 3838  
habit 7666  
hermaphroditism 3838, 5564  
hybrid varieties 1528  
modifiers 3838  
root 1528  
sex 3838, 5564, 7666  
sterility and fertility 5564  
yield components 1528
- Aspergillus***  
*Arachis* 2795, 6459, 7519  
*Capsicum* 8380  
*Gossypium* 8309  
*Oryza* 2162  
*Panicum* 1176  
*Sorghum* 4160  
*Zea*, maize 4068, 8063, 10494
- Assortative mating** 8658
- Astragalus***  
chemicals, as nutrients, nitrogen 9745  
chemicals, as plant constituents, tannin 6242  
chilling requirement 4317  
chromosomes, number 3861, 7848, 9744  
flowering 4317  
genetic resources 10223  
nitrogen fixation, technique 9745  
seed 6242  
synthetic varieties 5239  
taxonomy 8272, 9766  
varieties, USA 5239
- Asymmetry**  
*Beta*, sugar beet 2342  
*Phaseolus* 5654  
*Pinus* 808  
*Triticum* 9428
- Asynapsis**  
*Aegilops* × *Triticum* 7919  
*Avena* 5956  
*Gossypium* 4376  
*Hordeum* 8106  
*Secale* × *Triticum*, triticale 7919  
*Solanum*, potato 6310  
*Triticum* 7919, 8725  
*Zea*, maize 4015, 10458
- Asynapsis** (see Asynapsis)
- Atherigona***  
*Panicum* 9628  
*Sorghum* 2794, 4156, 4169, 4170, 4174, 4175, 4177, 4178, 4179, 4180, 4181, 4183, 4184, 5072, 5088, 8144, 8145, 8885



**Atriplex**

- chemicals, as plant constituents, nucleic acids 7729, 7730
- history and evolution 7729, 7730
- molecular genetics 7729, 7730
- photosynthesis 7730
- taxonomy 7730

**Atropa**

- anther culture 1680, 6848, 7528
- chemicals, as plant constituents
  - alkaloids 9919, 9920
  - cuskygrine 9919
  - cuzcohygrine 9920
  - hygrine 9919, 9920
  - scopolamine 9919, 9920
- chemicals, general effects
  - charcoal 1680
  - chelates 1680
  - DMSO 6848
  - glycerol 6848
- cold, effect of 6848
- germplasm banks, technique 7818
- haploidy 7528
- taxonomy 9919, 9920
- tissue culture 7818

**Atylosia**

- chemicals, as plant constituents, protein 6819
- history and evolution 6819
- hybridization, interspecific 2798
- Phytophthora* 7801
- seed 6819

**Atylosia × Cajanus**

- Ancylostoma* 6815
- chemicals, as plant constituents, protein 6815
- fruit 2797
- genetics
  - fruit 2797
  - hairs 2797
  - seed 2797
  - seed, colour 2797
- hairs 2797
- Heliothis* 2797
- hybridization, intergeneric 2797, 4763, 6815
- seed 2797
- seed, colour 2797

**Aubergine (see Solanum, egg plant)****Autopolyploidy (see Polyploidy)****Avena**

- altitude 7986
- aneuploidy 4823, 5956, 5957, 5958
- asynapsis 5956
- awns 5959
- back crossing 5956, 10409
- breeding
  - Czechoslovakia 1669
  - Finland 7822
  - German Democratic Republic 5772
  - German Federal Republic 4808
  - India 9503
  - Kazakh SSR 1897
  - Pakistan 5955
  - Ukrainian SSR 9506
  - USSR 43, 225, 4924, 7005, 9504, 9507
- breeding, technique 3991, 7860
- cell division 10404
- centres of origin or diversity 9503
- chemicals, as nutrients
  - copper 229
  - nitrogen 5967, 7990
  - phosphorus 7990
  - potassium 7990
- chemicals, as plant constituents
  - avenin 7987
  - enzymes 5807
  - esterase 2856, 7989
  - lipids 2862
  - lysine 8701
  - nucleic acids 2828, 2857, 4824
  - oil, fatty 3005, 7009
  - peroxidase 7989
  - phytic acid 7008
  - protein 2828, 3005, 5962, 5967, 7009, 7984, 7989, 7990, 8782
  - transaminase 2856
- chemicals, cytological effects, GA 10404
- chemicals, general effects
  - aldicarb 3007
  - atrazine 1112
  - barban 4000
  - GA 227

**Avena contd.**

- chemicals, general effects *contd.*
  - 1,8-naphthalic anhydride 4000
  - oryzalin 2862
  - trifluralin 2862
- chemicals, mutagenic effects
  - ethyl methanesulphonate 1901, 10384, 10409
  - miscellaneous 4929
- chromosome translocation 4823
- chromosomes, addition and substitution 5963, 5969
- chromosomes, morphology 4928
- Cochliobolus* 1687
- cold resistance 91, 10252
- combining ability 226
  - forage 10406
  - protein 8782
  - yield components 10406
- composite varieties 9505
- cytoplasmic inheritance 3993
- density of stand 3002, 7990
- development and growth 10402
- diallel analysis 226, 1903, 3005
- digestibility 1902, 7868, 7984
- Ditylenchus* 3872
- embryo culture 4823
- environment 7006, 8783
- Erysiphe* 5819, 5958, 5963
  - physiological races 5969, 8784
- flower 10403
- flowering 3996
- fluorescence 8784
- forage 1902, 1903, 5965, 7984, 8782, 10406
- fungi 10253
- γ rays 10404
- gene location 5958, 5959
- genetic variance
  - development and growth 10402
  - forage 10406
  - protein 8782
  - Puccinia* 10384
  - seed, weight 10384
  - yield components 10406
- genetics
  - Erysiphe* 5963, 5969
  - esterase 2856
  - hairs 1899
  - height 227, 3002, 3879, 4927, 10405
  - inflorescence 227
  - Puccinia* 3998, 3999, 4925, 4926, 5971, 5972, 5973, 7010, 7991, 10410
  - transaminase 2856
- genome analysis 1898
- genotype × environmental interaction 228, 1702, 5961
- geography 7990
- germplasm banks, Poland 1663
- growth period 1901, 3996, 4930, 4939, 7986, 9510, 10409
- growth period, technique 9509
- hairs 1899, 3008
- heat and drought resistance 7867, 10252
- height 227, 3002, 3003, 3879, 3993, 4927, 4930, 5965, 10405
- heritability 1899, 3005, 3006
- development and growth 10402
- Heterodera* 2864, 3007, 6885, 8708
  - physiological races, Denmark 10240
- heterosis 226
- history and evolution 1898, 4824, 4932, 9503, 10403
- hybridization, interspecific 75, 226, 1898, 3993, 5962, 5963, 5964, 5969, 7009, 8782, 10403
- hybridization, technique 9505
- inflorescence 227
- inflorescence, number 3993, 5964
- inflorescence, weight 3004
- internode 3002, 3879
- leaf, senescence 9510
- leaf, size 9510
- Leptosphaeria* 1904, 5968
- lodging 93, 3994, 5967
- meiosis 1898, 4823, 4928, 5956, 5963, 7866
- mixtures of crops or genotypes 1109
- modifiers 10405
- molecular genetics 2857, 4824
- mutation, induced 227, 1901, 3002, 3994, 4929
- Puccinia* 10409

**Avena contd.**

- neutrons 227, 3002
- nucleus 7866
- Oscinella* 3008, 10253
- Oulema* 10411
- outcrossing 1901
- ovule, size 5809
- pathology 3867
- photoperiodism 3862
- photosynthesis 4929
- pollen 9424
- pollination, technique 3995
- polymorphism 5807
- polyploidy 1898, 5964, 10384
- population genetics 4932
- Pseudocercospora*, physiological races 4827
- Pseudomonas*, physiological races 3887
- Puccinia* 1906, 2828, 3006, 4926, 10384, 10407, 10408, 10409
  - physiological races 4925, 5971, 7010
  - Canada 3998, 5972, 5973, 6884, 7991
  - Georgian SSR 10410
  - Israel 5161
  - USA 3999, 7991
  - USSR 10410
- quality, for nutrition 1717, 7984
- reflectance 4822, 7870
- Rhopalosiphum* 3010, 4933, 4934, 10258
- Rhynchosporium* 5820
- root 7867
- root, weight 3004
- Schizaphis* 4933
- seed 7007
- seed, weight 5962, 5964, 10384
- seedlings 3008, 10248
- selection, artificial 5961, 7006
- selection, natural 4932, 8783
- Septoria* 5820
- shedding 5959
- Sitobion* 10258
- sowing and planting date 5966, 7007
- spikelets, number 3993
- stability 5961, 7986
- sterility and fertility 3995, 5964, 7007
- taxonomy 9503
- temperature, effect of 91
- tissue culture 4823
- Ustilago* 1905, 5970
- Ustilago*, technique 1905
- varieties
  - Canada 3992
  - Denmark 6880
  - France 1044
  - Norway 9508
  - Rhodesia 2813
  - Sweden 6880, 9405
  - Switzerland 1043, 1111, 3207, 5960, 6880
  - UK 7831
  - Ukrainian SSR 9420
  - USA 4925, 4926
  - USSR 225, 9505
- varieties, classification 7870, 7987
- variety trials
  - Austria 4811
  - Finland 8682
  - Italy 224
  - Norway 6878, 9422
  - Poland 7986
  - Switzerland 1109
  - UK 2855, 5801, 5802, 5819, 5820
  - USA 72, 1042
- variety trials, technique 1110, 5800
- viruses 3009, 3010, 4933, 4934, 7011, 10412
  - physiological races, Canada 9511
- viruses, technique 5822
- water balance 91
- X rays 3994
- yield components 226, 228, 1901, 3003, 3006, 3997, 4930, 5966, 7988, 10406

**Avena (weed)**

- dormancy 1900
- genetics, dormancy 1900
- population genetics 2021

**Averrhoa**

- chemicals, as plant constituents
  - alkanes 5487
  - alkenes 5487
  - campesterol 5487
  - fatty acids 5487



**Averrhoa** *contd.*

- chemicals, as plant constituents *contd.*
- oleic acid 5487
- $\beta$ -sitosterol 5487
- heterostyly 10207

**Avocado** (see *Persea*)**Awns**

- Avena* 5959
- Hordeum* 1166, 1699, 5031, 6068, 6100, 9601, 10516
- Oryza* 6146, 9667, 9692
- Sorghum* 5077, 8882, 9641
- Triticum* 120, 127, 163, 1699, 3898, 4867, 4869, 6916, 6946, 7917, 8736, 8740, 8748, 9448, 10257

**Awns, colour**

- Hordeum* 10544
- Triticum* 1792, 2916

**Awns, length**

- Elymus* 10647
- Hordeum* 9612

**Awns, size**

- Hordeum* 8092
- Secale*  $\times$  *Triticum*, tritcale 221

**Awns, texture, *Hordeum*** 7109**Azolla**

- germplasm banks, Philippines 1686
- Oryza* 1686, 8192

**Azotobacter, *Triticum*** 6891**B chromosomes** (see Chromosomes, accessory) **$\beta$  rays**

- Camellia* 2393, 9866
- Citrus*, lemon 1014
- Citrus*, mandarin 1014
- Citrus*, orange 1014
- Gossypium* 1342
- Hordeum* 1626, 8838
- Oryza* 7187
- Zea*, maize 264

**Bacillus, *Prunus*, apricot** 6500**Back crossing**

- Aegilops*  $\times$  *Triticum* 7915
- Avena* 5956, 10409
- Brassica* 10995
- Brassica*, oil crops  $\times$  *Raphanus* 9238
- Brassica*, rape 1406
- Brassica*  $\times$  *Raphanus* 1531, 3673
- crop plants 4803
- Daucus* 9220
- Festuca*  $\times$  *Lolium* 8238
- Fragaria* 756, 10923
- Gossypium* 541, 3343, 7382, 10723
- Hordeum* 8836
- Linum* 556
- Malus* 5421
- Nicotiana* 6411
- Oryza* 5761
- Pennisetum* 9630
- Phaseolus* 8588
- Secale*  $\times$  *Triticum* 8777, 9501
- Secale*  $\times$  *Triticum*, tritcale 5939, 5942, 5944, 5946, 10398
- Solanum*, potato 4345
- Sorghum* 4136
- Triticum* 4852, 5889
- Zea*, maize 275, 10460

**Bacteria**

- Hordeum* 2852
- Lycopersicon* 4598, 6652
- Nicotiana* 10796
- Oryza* 9700
- Panicum* 1173, 1174, 1175, 7120
- Pisum* 4598
- Prunus*, plum 8400
- vegetable crops 4598
- Vicia*, vetch 7302
- Vitis* 10939

**Bacteria, technique, *Panicum*** 8127**Bahia grass** (see *Paspalum*)**Baking quality** (see Quality, for milling and baking)**Banana** (see *Musa*)**Bark**

- Betula* 6580
- Salix* 801

**Bark, colour**

- Betula* 10949
- Juglans* 786

**Bark, texture**

- Populus* 795
- Quercus* 10947

**Barley** (see *Hordeum*)**Basil** (see *Ocimum*)**Bean** (see *Phaseolus*; *Vicia*, broad bean; *Vigna*, minor species)**Beech** (see *Fagus*)**Beet, sugar** (see *Beta*, sugar beet)**Beetroot** (see *Beta*, beetroot)**Belladonna** (see *Atropa*)**Bemisia**

- Lycopersicon* 6666
- Manihot* 3417, 7430

**Benincasa**

- flowering 5616
- pollen 5616

**Bent** (see *Agrostis*)**Bermuda grass** (see *Cynodon*)**Beta**

- andrecium, anatomy 6849
- anther 1015
- apomixis 1364
- chemicals, as plant constituents
- starch 8668
- sugar 10761
- haploidy 5325
- heterosis 5325
- hybridization, interspecific 1364
- mutation, induced 10981
- photosynthesis 10761
- polyembryony and twinning 5325
- Polymyxa* 6377
- polyploidy 1364
- sterility and fertility 1364
- sterility, male 1015, 6849, 8668
- sterility, male, cytoplasmic 8668
- vascular tissue 1015
- viruses 6377
- X rays 5636

**Beta, beetroot**

- breeding
- Kazakh SSR 9212
- Lithuanian SSR 9213
- Ukrainian SSR 9211
- USSR 9210, 9215, 9218
- chemicals, as plant constituents
- betacyanins 8501
- betaxanthin 8501
- sugar 9219
- combining ability
- betacyanins 8501
- betaxanthin 8501
- heterosis
- betacyanins 8501
- betaxanthin 8501
- plant introduction, to Cuba 9214
- quality, for nutrition 9219
- quality, of juice 9219
- salinity 830
- varieties
- Japan 7656
- Sweden 10043
- USSR 4600, 9215
- variety trials, USSR 4318

**Beta, beetroot  $\times$  Beta, sugar beet, hybridization** 7656**Beta, fodder beet**

- breeding, German Federal Republic 4808
- chemicals, as plant constituents
- protein 4319
- sugar 2349, 10761
- harvesting 2349
- heterosis 7312
- photosynthesis 10761
- polyploidy 7312
- root, weight 2349, 7312
- seed production 6874
- tissue culture 1297
- varieties
- Austria 3854
- UK 9768
- variety trials
- Austria 4811
- Denmark 3840
- Irish Republic 4319
- Kazakh SSR 3302
- Switzerland 3301

**Beta, fodder beet  $\times$  Beta, sugar beet**

- hybridization 10760
- quality, for industrial processing 10760

**Beta, mangel** (see *Beta*, fodder beet)**Beta, sugar beet**

- andrecium 6390
- aneuploidy 575, 2351, 6382, 6383, 10765, 10766
- anther 10768

**Beta, sugar beet *contd.***

- Aphanomyces* 574
- Aphis* 9413
- apomixis 10764
- asymmetry 2342
- bolting 2343, 8322
- bolting, technique 6385
- Botrytis* 574
- breeding 2340
- Europe 2339
- German Democratic Republic 5772, 10763
- German Federal Republic 4808
- Japan 6392
- Kazakh SSR 7418, 10762
- Poland 10763
- Ukrainian SSR 4414
- USA 574, 3393
- USSR 43
- breeding, technique 2341
- canopy 4413
- cell division 5326
- cell, size 2340, 5326, 7423
- Cercospora* 574, 3393, 4418, 6392, 9844, 10763
- chemicals, as nutrients, nitrogen 7427, 9843
- chemicals, as plant constituents
- acid invertase 4415
- alkaline invertase 4415
- aminoacids 10768
- chloride 6387
- chlorophyll 6380, 8328
- chromatin 6381
- ethylene 4418
- malate dehydrogenase 6384
- malic enzyme 6384
- nitrogen 8322, 9843
- peroxidase 8327
- potassium 6387, 6388, 8322, 9843
- ribonuclease 8328
- sodium 6387, 6388, 8322, 9843
- sucrose 2344, 2346, 4413, 4415, 6388
- sucrose synthetase 4415
- sugar 577, 578, 2345, 2349, 4414, 4415, 7426, 8322, 9843, 10761, 10769
- sugar, technique 6385
- chemicals, general effects
- ethephon 2343
- GA 2343, 3390, 10767
- growth regulators 2343
- hydrochloric acid 8326
- kinetin 10767
- potassium 6388
- sodium 6388
- sodium chloride 6387
- chemicals, mutagenic effects
- acriflavine 2347
- dimethyl sulphate 578
- ethyl methanesulphonate 2347, 6380
- N*-nitroso-*N*-methylurea 6380
- streptomycin 2347
- chromosome translocation 7421, 9028
- chromosomes, aberrations 575, 5329, 10766
- chromosomes, addition and substitution 2350, 3396, 7421
- chromosomes, morphology 6381, 9028
- chromosomes, morphology, technique 9027
- cold, effect of 3389, 6391
- combining ability 7422, 7656
- Corticium* 9844
- crossing over 2350, 2351
- development and growth 2345, 2346, 4413, 4416, 9843
- Erysiphe* 3395, 9030, 9845, 9846
- flower 6390
- $\gamma$  rays 2348, 6390, 6391, 7419
- gene location, *Heterodera* 9028
- genetic variance 7422
- genetics
- andrecium 6390
- flower 6390
- malate dehydrogenase 6384
- malic enzyme 6384
- sterility, male, cytoplasmic 2348
- genotype  $\times$  environmental interaction 8322, 9030, 9845
- germination 2346, 3388, 3389, 6383, 7424, 7425, 10767
- germination, technique 4417, 6385, 8326



**Beta, sugar beet** *contd.*

- growth period 2343, 4413, 9842
- habit 9842
- haploidy 5327, 9840
- harvesting 2349
- Heterodera* 2350, 2351, 5328, 5329, 7421, 9028
- heterosis 5326
- history and evolution 7850
- hybrid varieties 9840
- hybridization, interspecific 2350, 2351, 3396, 5329, 7421, 10764
- inbreeding 7420, 7426
- laser beams 575, 9029, 10766
- leaf, size 4416, 6380
- leaf, weight 4415
- light, effect of 575
- linkage 7421
- meiosis 5327, 6382, 7420, 7421
- mixtures of crops or genotypes 7850
- molecular genetics 2341
- monogerm seed balls 576, 1367, 2342, 3388, 3394, 6378, 6379, 6392, 7419, 8323, 9842, 10763
- multiple genes 3396
- mutation, induced 2347, 2348, 6380, 6390, 7419
- Myzus* 9413
- nematodes 3396
- Peronospora* 8322
- Peronospora*, technique 6385
- photosynthesis 10761
- physiology 8325
- Pleospora* 3394
- pollen 6389, 6391
- Polymyxa* 6377
- polyploidy 574, 577, 1367, 2342, 3396, 6382, 7422, 7423, 7424, 7850, 9842, 9845, 10763, 10765, 10766
- quality, for industrial processing 10769
- quality, for sugar extraction 2349, 9843
- quality, for sugar extraction, technique 3391
- respiration 2340
- respiration, technique 6386
- Rhizoctonia* 574, 6392, 7427
- root 2342, 9029
- root, size 2344
- root, weight 2349, 4415, 6383, 8328
- salinity 68, 6387
- seed production 6874, 9029, 9842
- seedlings 2345, 2346
- selection, natural 66
- soil moisture 8326
- sterility and fertility 9840
- sterility, male 577, 6390, 10768
- sterility, male, cytoplasmic 576, 1367, 2347, 2348, 3393, 6390, 6392, 6868, 8327
- sterility, self 576, 6391, 6392
- stomata, size 7423
- temperature, effect of 4416
- tissue culture 10765
- translocation, physiological 2340, 2344
- varieties, German Democratic Republic 10763
- variety trials
  - Austria 4811
  - Belgium 1366
  - France 1365
  - Israel 8324
  - New Zealand 8323
  - UK 6378, 6379, 9841
- vascular tissue 2344, 4413
- vegetative reproduction 3390
- viruses 3393, 4419, 6377, 8328, 9413, 9845, 9846
- viruses, technique 6385
- yield components 8325

**Beta, sugar beet**  $\times$  **Beta, beetroot**, hybridization 7656**Beta, sugar beet**  $\times$  **Beta, fodder beet**, hybridization 10760**Betula**

- Amanita* 4585
- bark 6580
- bark, colour 10949
- chemicals, as plant constituents
  - betulin 10949
  - lipids 5524
  - nitrogen 5523, 5525
  - starch 5525
  - suberin 10949

**Betula** *contd.*

- ecotypes 2563
- $\gamma$  rays 4584, 9185
- germination 9185
- heritability 6580
- hybridization, interspecific 1504, 10030
- increment 6580
- inflorescence, number 9184
- leaf, anatomy 5525
- mycorrhiza 4585
- photoperiodism 2563
- ploidy 9185
- precocity of bearing 9184
- provenance trials, USA 9184
- quality, of timber 10030
- seedlings 9185
- variation 5525, 5526
- water balance 5525

**Bibliography**

- crop plants, nematodes 3873
- Manihot*, *Xanthomonas* 3410
- Oryza*, breeding 1207
- Saccharum*, breeding 1358
- Voandzeia*, breeding 477

**Bilberry** (see *Vaccinium*)**Biloba**, *Arachis* 10831**Biochemistry** (see Chemicals, as plant constituents)**Birch** (see *Betula*)**Birds**

- Phoenix* 9141
- Sorghum* 1194, 2096, 4158, 5083, 6120, 7151, 8148, 8884

**Birdsfoot trefoil** (see *Lotus*)**Bitter pit**, *Malus* 2483, 3527**Black currant** (see *Ribes*, black currant)**Black spot**, *Solanum*, potato 6323**Blackberry** (see *Rubus*, blackberry)**Blissus**

- Sorghum* 8145, 10589
- Stenotaphrum* 5203

**Blossom end rot**, *Lycopersicon* 8554**Blotch**, *Lycopersicon* 8553**Blueberry** (see *Vaccinium*)**Bluegrass** (see *Poa*)**Bluestem** (see *Andropogon*)**Blumeriella**, *Prunus*, cherry 3557**Boehmeria**

- quality, of fibre 10746
- stem 10746

**Bolting**

- Allium*, onion 6609
- Beta*, sugar beet 2343, 8322
- Brassica*, Chinese cabbage 1642, 10973
- Digitalis* 9912, 9914
- Lactuca* 11000

**Bolting, technique**, *Beta*, sugar beet 6385**Book**

- Alnus*, mutation, induced 9174
- Brassica*
  - botany 854
  - breeding 854
  - cell culture 11203
  - cereals, mutation, induced 6866
  - Citrus*, breeding 7567
  - crop plants
    - breeding, Europe 1011
    - breeding, technique 4806
    - chemicals, as plant constituents, miscellaneous, technique 2773
    - genetic resources 8680
    - inbreeding 2811
    - insects 2774, 7858
    - mutation, induced 6866
    - physiology 7841
  - cytogenetics 10195
  - Fagopyrum*, breeding, USSR 404
  - Festuca*, agronomy 7255
  - forest trees 10196
    - population genetics 6567
  - Fraxinus*, mutation, induced 9174
  - fruit crops, mathematics 2463
  - Gossypium*
    - breeding 7372
    - USSR 8988
  - genetics 526
  - Verticillium* 4387
  - Hordeum*, mutation, induced 298, 6866
  - Lycopersicon*, *Phytophthora* 921
  - Medicago*
    - breeding 2210
    - taxonomy 996
  - millets, quality, for nutrition 5720
- mutation 9347
- Nicotiana* 10194
- Oryza*, breeding 344, 5114
- Picea*, mutation, induced 9174
- Pinus*
  - mutation, induced 9174
  - seed 3637
- polyploidy 6832
- population genetics 5718
- Populus* 4580
- Quercus*, mutation, induced 9174
- root crops, breeding, USSR 6279
- Secale*, aneuploidy 231
- Solanaceae
  - botany 995
  - taxonomy 995
- Solanum*, potato
  - breeding, Belorussian SSR 1303
  - mutation, induced 5250, 6866
- Sorghum*, quality, for nutrition 5720
- statistics 994, 4772
- sterility and fertility 6825
- Tilia*, mutation, induced 9174
- Triticum* 9435, 10259
  - breeding
    - India 9435
    - USSR 9429
  - Puccinia* 5929
- Zea*, maize 9523
  - mutation 263

**Borers, unspecified, Oryza** 5147**Botany**

- Brassica*, book 854
- dictionary 10197
- Nicotiana*, review 2369
- Oryza*, symposium 3157
- Picea* 4591
- Solanaceae, book 995
- Botrytis** (see also *Sclerotinia*)
  - Beta*, sugar beet 574
  - Digitalis* 9912, 9914
  - Fragaria* 5420
  - Hibiscus* 10738
  - Lycopersicon* 915
  - Rubus*, raspberry 3499, 5468, 5469, 9979, 10900, 10902, 10905, 10907, 10913
  - Vicia*, broad bean 4664, 7737
  - Vitis* 5503, 6558, 9161, 9162, 9168, 9374, 10007

**Botrytis, technique, Vicia, broad bean** 6698**Brachycolus, Hordeum** 10257**Bracts**

- Brassica*, cauliflower 2614
- Gossypium* 528, 1352, 2807, 5296, 9802
- Bracts, colour, Triticum** 201

**Bramble** (see *Rubus*, blackberry)**Branching** (see *Habit*)**Brassica**

- Alternaria* 5575
- anther, colour 1533
- back crossing 10995
- botany, book 854
- breeding
  - book 854
  - review 855
  - symposium 3659, 5565, 5574
- chemicals, as plant constituents
  - acid phosphatase 865, 3667
  - anthocyanins 1533
  - enzymes 3672
  - esterase 10995
  - fatty acids 859, 3661
  - glucosinolates 3661, 10054
  - glutamate oxaloacetate transaminase 3672
  - glycoprotein 2609, 6616
  - glycoprotein, technique 2609
  - linoleic acid 2607
  - lipids 2607
  - oil, fatty, review 859
  - palmitic acid 2607
  - peroxidase 10995
  - phosphoglucosyltransferase 3672
  - protein 6615, 6870
  - ribulose 1,5-diphosphate carboxylase 857
  - sinapine, technique 10232
  - sinigrin 10054
  - superoxide dismutase 3672
  - wax 10054



**Brassica contd.**

- chemicals, general effects
  - atrazine 1392
  - cyanazine 1392
  - metribuzin 1392
- chromosomes, number 1532, 3824, 8514
- computer programming 1529
- corolla 1533
- corolla, colour 1533
- cytology, review 6614
- cytoplasmic inheritance 853, 1533
- Delia* 5586, 6619
- dormancy 3676
  - review 863
- Erysiphe* 5575
- flower 865
- fungi, review 5575
- Fusarium* 5575
- $\gamma$  rays 7673
- gene interaction 1533
- gene location 3672
- genetic resources 850, 1529, 1649
- genetics
  - acid phosphatase 865, 3667
  - anther, colour 1533
  - anthocyanins 1533
  - corolla 1533
  - corolla, colour 1533
  - enzymes 3672
  - flower 865
  - glutamate oxaloacetate transaminase 3672
  - glycoprotein 2609
  - gynecium, colour 1533
  - habit 1535
  - leaf 1533, 1535
  - Leptosphaeria* 3677, 5580
  - phosphoglucosmutase 3672
  - Plasmidiophora* 1535
  - seedlings 865
  - sterility and fertility 865, 6616
  - sterility, self 2609
  - superoxide dismutase 3672
- genome analysis 853, 6614, 7667
- genotype  $\times$  environmental interaction 1533
- germination, review 863
- germplasm banks 850
  - Japan 864
  - Spain 864
  - Taiwan 1664
- gynecium 6615, 6616
- gynecium, colour 1533
- habit 1535
- heterosis 2605
- history and evolution 3661, 3666
  - review 6614
- hybridization 2605
- hybridization, interspecific 852, 7667, 8514, 10054, 10995
  - review 856
- leaf 1533, 1535
- Leptosphaeria* 5575
- Leptosphaeria*, technique 3677, 5580
- linkage 865, 1533, 1535
- Lipaphis* 10054
- meiosis 8514
- mutation, induced 7673
- Mycosphaerella* 5575
- Peronospora* 5575
- Plasmidiophora* 3661, 5575
  - physiological races 1535, 5579, 7671
  - Canada 7673
- Plasmidiophora*, technique 5579, 7671
- pollen 2607, 6615
- polyploidy 1532, 2605, 3672, 8514
  - review 855
- Pyrenopeziza* 9239
- recombination 1533
- seed storage, review 862
- seedlings 865
- sterility and fertility 865, 3661, 8514
- sterility and fertility, technique 6616
- sterility, male, review 857
- sterility, male, cytoplasmic 7667, 7668
  - review 857
- sterility, self 2607, 2609
  - review 858, 6615
- substitution lines 10995
- taxonomy 853, 1532, 3661, 6617
  - review 6614
- varieties, classification 1529
- vascular tissue 10054

**Brassica - Arabidopsis, protoplast fusion 3671****Brassica, broccoli  $\times$  Brassica, cabbage**

- hybridization 10973
- sterility, male 10973

**Brassica, Brussels sprouts****Apis 7674****Brevicoryne 2616****Calliphora 7674****chemicals, as plant constituents****acid phosphatase 2608, 3675****aminoacids 2616****ascorbic acid 2610****enzymes 2608****sucrose 2610****sugar 2610****chemicals, fertility and sex, effects****alkanes 2615, 5571****GA 7669****mineral oil 10973****paraffin 2615, 3686, 5571****cold, effect of 5593****development and growth 3685****flowering 5593****genetic variance 6624****genetics****acid phosphatase 2608, 3675****sterility and fertility 4613****sterility, self 4613, 5570, 6624****growth period 3685, 5593****hybrid varieties, technique 2608, 3675,****7674****internode, number 3685****pollination, technique 2615, 3686, 5571,****7674****size 3685****sterility and fertility 4613****sterility, male 7669****sterility, self 2615, 3686, 4613, 5570,****5571, 6624, 10973****varieties, UK 2812, 9245****variety trials, Belgium 8518****vernalization 5593****viruses 6625****weight 3685****Brassica, Brussels sprouts  $\times$  Brassica,****cabbage****genetics****sterility and fertility 4613****sterility, self 4613****hybridization 4613****sterility and fertility 4613****sterility, self 4613****Brassica, cabbage****Aleyrodes 6620****anther culture 2612, 7670****breeding, German Democratic Republic****4615****Brevicoryne 5590****chemicals, as nutrients****calcium 10982****magnesium 10982****potassium 10982****chemicals, as plant constituents****acid phosphatase 2608, 3675****ascorbic acid 2610****calcium 9240****chlorophyll 4617****copper 9240, 10982****enzymes 2608****glucose 4618****glucosinolates 5582, 5583****phosphorus 9240****potassium 9240****sucrose 2610****sugar 2610****chemicals, fertility and sex, effects, GA****7669****chromosomes, number 5566*****Delia* 5590*****Erwinia* 828, 1539*****Fusarium* 1539, 6618, 10998****genetics****acid phosphatase 2608, 3675****sterility and fertility 4613****sterility, self 1537, 4613, 5570****growth period 5589, 9240****haploidy 2612****harvesting 5589****heritability 5581****hybrid varieties 4615, 10996****hybrid varieties, technique 2608, 3675****hybridization 5581****Brassica, cabbage contd.**

- hybridization, interspecific 5566, 7673
- immunology 1537
- insects 5590
- leaf, weight 5581
- Leptosphaeria* 828
- pepper spot 5591, 6622
- Pieris* 866, 1539
- plant introduction, to Cuba 9214
- Plasmidiophora* 1539, 5566, 6618, 9241, 10998
  - physiological races 2611
- pollen 3652
- pollination, technique 5588
- quality 10055
  - quality, for food processing 10055
  - quality, for pickling and salting 1538
  - quality, for storage 4617
  - quality, for storage, technique 4618
- seed 5583
- sowing and planting date 10997
- sterility and fertility 4613, 5566
- sterility, male 5566, 7669
- sterility, male, cytoplasmic 3458
- sterility, self 1537, 1538, 4613, 5570, 5588, 10973
- temperature, effect of 5589
- tissue culture 3681
- varieties, USA 851
- variety trials
  - Cuba 868
  - French West Indies 10056
  - German Federal Republic 10996
  - India 10057
  - Indonesia 3670
  - Norway 10055
  - USSR 4614
- viruses 5591, 6621
- weight 5581
- Xanthomonas* 828, 10998
  - physiological races 4620
- Brassica, cabbage  $\times$  Brassica, broccoli,**
- hybridization 10973**
- Brassica, cabbage  $\times$  Brassica, Brussels**
- sprouts, hybridization 4613**
- Brassica, cabbage  $\times$  Brassica, cauliflower**
- hybridization 10973**
- sterility, male 10973**
- Brassica, cabbage  $\times$  Brassica, kale  $\times$**
- Raphanus**
- chromosomes, number 3678**
- hybridization, intergeneric 3678**
- sterility, male, cytoplasmic 3678**
- Brassica, cabbage  $\times$  Brassica, rape  $\times$**
- Raphanus, hybridization, intergeneric**
- 3458**
- Brassica, cabbage  $\times$  Brassica, sprouting**
- broccoli  $\times$  Brassica, swede**
- hybridization, interspecific 5585**
- Plasmidiophora* 5585**
- Brassica, cabbage  $\times$  Brassica, swede**
- chromosomes, addition and substitution**
- 5585**
- hybridization, interspecific 5585**
- Plasmidiophora* 5585**
- Brassica, cabbage  $\times$  Raphanus**
- aneuploidy 3660**
- embryo culture 2606**
- hybridization, intergeneric 2606, 3660**
- matrocliny 2606**
- polyploidy 2606, 3660**
- sterility and fertility 2606, 3660**
- Brassica, cauliflower**
- bracts 2614**
- chemicals, as plant constituents, ascorbic**
- acid 8516**
- chemicals, fertility and sex, effects, GA**
- 7669**
- cold resistance 4621**
- Delia* 6619**
- genetic variance 5592**
- genetics**
- habit 5592**
- inflorescence, colour 1542**
- size 3683**
- sterility, self 1543, 3683**
- glass and plastic, cultivation under 9243**
- growth period 4621**
- habit 5592**
- heritability 1542, 5592**
- hybrid varieties 1543**
- inflorescence, colour 1542, 2614**
- leaf, texture 3684**



**Brassica, cauliflower contd.**

- meiosis 2613
- mixoploidy 2613
- multiple alleles 1543
- Pieris* 3684
- Plasmodiophora* 3682
  - physiological races 2611
- Plutella* 3684
- pollen 2613
- size 3683
- sterility, male 7669
- sterility, self 1543, 3683
- tissue culture 2614
- Trichoplusia* 3684
- varieties
  - Sweden 10058
  - UK 8517, 9244
  - USA 1541
- variety trials
  - India 8516
  - Indonesia 3670
  - New Zealand 9242
  - USSR 9243
- vegetative reproduction 2613, 3682
- Brassica, cauliflower × Brassica, cabbage,**
  - hybridization 10973
- Brassica, Chinese cabbage**
  - anther culture 3679
  - bolting 1642, 10973
  - breeding, Taiwan 867
  - cold, effect of 1642
  - Delia* 6619
  - Erwinia* 1642
  - Fusarium* 6618
  - genetics
    - Plasmodiophora* 5584
    - sterility, male 3680
  - germplasm banks, Taiwan 1664, 3849
  - growth period 4616
  - haploidy 3679
  - heat and drought resistance 867, 1642, 3669
  - Hellula* 1642
  - hybrid varieties 4616
  - hybridization, interspecific 7837
  - linkage 5584
  - Peronospora* 1642
  - Plasmodiophora* 5584, 6618
    - physiological races 2611
    - UK 6283
  - protoplasts 2597
  - sowing and planting date 869, 870
  - sterility and fertility 1642
  - sterility, male 3680
  - temperature, effect of 870
  - tip burn 10973
  - transitory yellowing 4619
  - varieties, Japan 5587
  - variety trials
    - Indonesia 3670
    - USA 869
  - viruses 1642, 8515
    - physiological races 1540
  - yield components 4616
- Brassica, Chinese cabbage × Brassica, rape**
  - hybridization 8515
  - viruses 8515
- Brassica, Chinese cabbage × Brassica, turnip**
  - hybridization 8515
  - viruses 8515
- Brassica × Eruca**
  - germination 3665
  - hybridization, intergeneric 3665
  - sterility and fertility 3665
- Brassica, kale**
  - chemicals, as plant constituents
    - acid phosphatase 2608
    - enzymes 2608
    - lignin 6869
    - S-methylcysteine sulfoxide, technique 1545
  - chemicals, fertility and sex, effects, GA 7669
  - combining ability 2617
  - digestibility 6869
  - genetics
    - acid phosphatase 2608
    - sterility, self 1537
  - hybrid varieties, technique 2608
  - hybridization, interspecific 1530
  - immunology 1537
  - Plasmodiophora* 6618

**Brassica, kale contd.**

- Pyrenopeziza*, technique 1536
- quality, for nutrition, technique 1545
- sterility and fertility 1530
- sterility, male 7669
- sterility, self 1537
- varieties
  - Czechoslovakia 3855
  - USA 7672
- varieties, classification 2618
- yield components 2617
- Brassica, kale × Brassica, cabbage × Raphanus**, hybridization, intergeneric 3678
- Brassica, kale × Brassica, rape**,
  - hybridization, interspecific 3664
- Brassica, kale × Raphanus**
  - breeding, UK 3662
  - chromosomes, elimination 10987
  - Erysiphe* 3662
  - grazing 3662
  - hybridization, intergeneric 3662, 10987
  - Plasmodiophora* 3662
  - quality, for nutrition 3662
- Brassica, kohl rabi**
  - varieties, Netherlands 480
  - variety trials, German Federal Republic 6282
- Brassica, mustard** (see *Brassica*, oil crops; *Sinapis*)
- Brassica, oil crops**
  - Albugo* 9060
    - physiological races, USA 633
  - Alternaria* 9059
  - anther culture 7484
  - Brevicoryne* 6438
  - chemicals, as plant constituents
    - anthocyanins 633
    - chlorophyll 633
    - erucic acid 3459, 9056
    - fatty acids 65, 3459
    - oil, fatty 9053, 10811
    - sterols 6617
  - chemicals, mutagenic effects
    - azide, sodium 633
    - ethyl methanesulphonate 633
  - combining ability 2400, 4453, 4454; 4459, 9053
  - corolla 633
  - diallel analysis 2399, 4459
  - fruit, size 632
  - γ rays 1397, 1398, 9059, 10811
  - genetic resources 3663
  - genetic variance 9053
  - genetics
    - Albugo* 633
    - anthocyanins 633
    - corolla 633
    - hairs 633
    - pollen, colour 633
    - seed, colour 1399, 9881
    - seedlings, colour 633
    - sterility and fertility 8361
    - sterility, self 8361
  - genotype × environmental interaction 7483, 9053
  - geography 3663
  - growth period 632, 3452, 4462, 9057
  - habit 632
  - hairs 633, 5371
  - haploidy 7484
  - height 632, 3452, 4462, 9057
  - heritability 2403
  - heterosis 4453, 4454
  - history and evolution 3663
  - hybridization 4454
  - hybridization, interspecific 632, 3455, 9056
  - leaf, shape 5371
  - Leptosphaeria* 5576, 9056
  - Lipaphis* 10814
  - Macrophomina* 1405
  - maternal effects 9053
  - multiple alleles
    - sterility and fertility 8361
    - sterility, self 8361
  - multiple genes 1399
  - multivariate analysis 4461
  - mutation 5371
  - mutation, induced 633, 1397, 1398, 4455, 9059
  - growth period 9057
  - height 9057

**Brassica, oil crops contd.**

- mutation, induced contd.
  - seed, colour 10811
- neutrons 9057
- Peronospora* 9060
- Plasmodiophora*, physiological races 2611
- pollen, colour 633
- polyploidy 3455
- seed, colour 1399, 8362, 9881, 10811
- seed, number 3452
- seed, weight 3452, 10811
- seedlings, colour 633
- selection, artificial 3452
- stability 9053
- statistics 4455
- stem 632
- sterility and fertility 632, 2399, 8361, 9056
- sterility, self 1398, 5567, 8361
- taxonomy 3663
- tissue culture 2402, 8362
- variety trials, Kuwait 9880
- X rays 9057
- yield components 1397, 2399, 2400, 2403, 4453, 4459, 4461, 4462, 9053
- Brassica, oil crops × Brassica, rape**
  - chemicals, as plant constituents
    - erucic acid 3463
    - linolenic acid 3463
  - hybridization, interspecific 3463
- Brassica, oil crops × Raphanus**
  - back crossing 9238
  - chemicals, as plant constituents,
    - chlorophyll 9238
  - hybridization, intergeneric 9238
- Brassica, rape**
  - Alternaria* 6437
  - aneuploidy 1396, 3454, 10810
  - anther culture 1400, 3454, 4463, 9409
  - back crossing 1406
  - breeding
    - Canada 1392, 1393
    - Finland 7826
    - France 4464
    - Poland 3668
    - review 860, 861
  - cell culture 5577
  - chemicals, as nutrients, manganese 4466
  - chemicals, as plant constituents
    - cadmium 7486
    - chlorophyll 8363
    - copper 7486
    - erucic acid 860, 1404, 1406, 3464, 3465, 4458, 4464, 6433, 7485, 7826, 8360, 9056
    - erucic acid, technique 5786
    - fatty acids 860, 6431
    - glucosinolates 3464, 3465, 3668, 4464, 4465, 5372, 6431, 6433, 7485, 7826, 8360
    - review 861
    - glucosinolates, technique 5786, 6435
    - lead 7486
    - linoleic acid 3462, 3668, 4456
    - linolenic acid 3462, 4456, 4464
    - lipids 6431
    - nitrogen 3453
    - oil, fatty 2404, 3668, 4458, 4465, 8360, 9052
    - review 860
    - oleic acid 3668, 4458
    - phosphoenolpyruvate carboxylase 2401
    - phytic acid, technique 6433
    - proline 8363
    - protein 2404, 4465, 6431, 7485, 8360
    - sinalbin 3464
    - sterols 6617
    - zinc 7486
  - chemicals, fertility and sex, effects, carbon dioxide 2401
  - chemicals, general effects
    - atrazine 1393, 1406
    - cyanazine 1393, 1406
    - Leptosphaeria* toxin 5577
    - metribuzin 1393, 1406
    - triazine 1406
  - chemicals, mutagenic effects
    - ethyl methanesulphonate 3462
    - N-nitroso-N-methylurea 3462
  - chromosomes, addition and substitution 7837
  - chromosomes, number 3466



**Brassica, rape contd.**

- cold resistance 3668
- Cylindrosporium* 6437
- cytoplasmic inheritance 1406
- development and growth 6434, 6436, 10809
- diallel analysis 3457, 3461
- ecotypes 9054
- embryo 4458
- embryo, colour 4456
- Erysiphe* 7837
- flower, colour 1395
- fruit, number 3461, 3664
- fruit, size 3664
- genetics
  - embryo, colour 4456
  - flower, colour 1395
  - growth period 3457
  - leaf 1395
  - Leptosphaeria* 3677, 5580
  - seed, colour 4460
  - sterility, male 1395
  - sterility, male, cytoplasmic 1401, 1402, 4457, 5569, 5573
- genotype  $\times$  environmental interaction 3668, 10809
- germination 8363
- growth period 3457, 6434, 9054, 10809
- gynecium 2401
- habit 632, 3456
- haploidy 1400, 3454, 5577, 9409, 10810
- heat and drought resistance 8363
- height 632, 3668, 10809
- heritability 8363
- heterosis 2605, 3668, 5370
- hybrid varieties, technique 9055
- hybridization 2605
- hybridization, interspecific 632, 1406, 3664, 7837, 9056
- leaf 1395
- Leptosphaeria* 1404, 3465, 5576, 5577, 6436, 6437, 9056
- Leptosphaeria*, technique 3677, 5580
- meiosis 3454, 7837
- mutation 4456
- mutation, induced 3462
- nectar 9058
- Peronospora* 6437
- Phoma* 6437, 10813
- photoperiodism 3862, 6434, 10813
- Plasmidiophora* 3466, 7837
  - physiological races, UK 6283
- Plasmidiophora*, technique 5577
- pollination 2401, 9058
- polyploidy 2605, 3454
- protoplast fusion 4463
- Pyrenopeziza* 1403, 6437
- Pyrenopeziza*, technique 1536
- quality, for industrial processing 2404
- quality, for nutrition 861, 5372, 7485
- Ramularia* 1403
- salinity 5373
- Sclerotinia* 1403, 5576
- seed, colour 4460, 4465, 6433
- seed, number 6432
- seed production 1401, 5569, 9052
- seed, weight 3668
- selection, artificial 3668, 8363
- sowing and planting date 3460, 6434, 9054
- stability 9054
- sterility and fertility 632, 1396, 1400, 9056
- sterility, male 1395, 1403, 9055
- sterility, male, cytoplasmic 1401, 1402, 3458, 4457, 5569, 5573
- sterility, self 2401, 6432
- temperature, effect of 1400, 10813
- tissue culture 4463, 5577, 10810
- varieties
  - Australia 1394
  - Denmark 8360
  - S. Korea 631
  - Sweden 9405
- variety trials
  - Czechoslovakia 3453
  - Denmark 3840, 8360, 9052
  - Ethiopia 6431
  - Finland 8682
  - German Federal Republic 6431
  - Iran 6431
  - Switzerland 6430
  - Turkey 6431

**Brassica, rape contd.**

- variety trials contd.
  - Yugoslavia 6431
- variety trials, technique 5774
- Verticillium* 1404
- viruses 8515
- yield components 2398, 3460, 3461, 3664
- Brassica, rape  $\times$  Brassica, cabbage  $\times$  *Raphanus*, hybridization, intergeneric 3458**
- Brassica, rape  $\times$  Brassica, Chinese cabbage, hybridization 8515**
- Brassica, rape  $\times$  Brassica, kale, hybridization, interspecific 3664**
- Brassica, rape  $\times$  Brassica, oil crops, hybridization, interspecific 3463**
- Brassica, rape  $\times$  Brassica, swede hybridization 1401, 5569**
  - seed production 1401, 5569
- Brassica, rape  $\times$  Brassica, turnip**
  - chromosomes, addition and substitution 3303
  - genome analysis 3303
  - hybridization, interspecific 3303
  - polyploidy 3303
- Brassica, rape  $\times$  *Raphanus***
  - chemicals, as plant constituents,
    - chlorophyll 5572
  - embryo culture 2606
  - hybridization, intergeneric 2606, 5572
  - matrocliny 2606
  - sterility and fertility 2606
  - sterility, male, cytoplasmic 5572
- Brassica  $\times$  *Raphanus***
  - aneuploidy 1531, 3660
  - back crossing 1531, 3673
  - chemicals, as plant constituents
    - chlorophyll 1531
    - enzymes 3667
  - chromosomes, number 1531
  - cytoplasmic inheritance 853, 1531
  - flower, colour 1401, 3674, 5569
  - genetics
    - flower, colour 1401, 3674, 5569
    - sterility, male, cytoplasmic 1401, 5569
  - genome analysis 853
  - hybridization, intergeneric 852, 853, 855, 1401, 1530, 1531, 3660, 3667, 3673, 3674, 5569, 9407
  - review 856
  - polyploidy 855, 3660, 9407
  - sterility and fertility 1530, 3660, 3673
  - sterility, male, cytoplasmic 1401, 3673, 5569
  - taxonomy 853
- Brassica, red cabbage**
  - breeding, German Democratic Republic 4615
  - chemicals, as plant constituents
    - ascorbic acid 2610
    - glucosinolates 5582, 5583
    - sucrose 2610
    - sugar 2610
  - Delia* 6619
  - heritability 5581
  - hybrid varieties 4615
  - hybridization 5581
  - insects 5590
  - leaf, weight 5581
  - Pieris* 866
  - seed 5583
  - weight 5581
- Brassica, sprouting broccoli**
  - aneuploidy 1544
  - chemicals, as plant constituents
    - acid phosphatase 2608
    - enzymes 2608
  - genetics
    - acid phosphatase 2608
    - sterility, self 4622, 5570
  - hybrid varieties, technique 2608
  - meiosis 1544
  - pollen 3652
  - polyploidy 1544
  - sterility, self 4622, 5570
  - tissue culture 6623
  - vegetative reproduction 6623
- Brassica, sprouting broccoli  $\times$  Brassica, cabbage  $\times$  Brassica, swede, hybridization, interspecific 5585**
- Brassica, swede**
  - breeding, USSR 8964

**Brassica, swede contd.**

- chemicals, as plant constituents
  - glucosinolates 1534, 4321, 5246, 6281
  - goitrin 5246, 6281
  - 5-vinyloxazolidinethione 3305
- chemicals, general effects, GA 5568
- combining ability 7834
- Erysiphe* 3309
- Erysiphe*, technique 4322
- flowering 5568
- genetics, sterility, self 7834
- germplasm banks, UK 1299
- inbreeding 7834
- multiple alleles 7834
- Plasmidiophora* 4320, 5245, 5246, 6618, 7834, 8964
  - physiological races, UK 6283
- Pyrenopeziza*, technique 1536
- quality 1300
- quality, for nutrition 6281
- Rhizoctonia* 3308
- soil pH 6281
- sterility, self 5567, 7834
- varieties
  - New Zealand 4320
  - UK 9768, 9770
- variety trials, Norway 5245
- vernalization 5568
- Brassica, swede  $\times$  Brassica, cabbage, hybridization, interspecific 5585**
- Brassica, swede  $\times$  Brassica, cabbage  $\times$  Brassica, sprouting broccoli, hybridization, interspecific 5585**
- Brassica, swede  $\times$  Brassica, rape, hybridization 1401, 5569**
- Brassica, swede  $\times$  Brassica, turnip**
  - aneuploidy 481
  - chromosomes, number 481
  - hybridization, interspecific 481, 4320, 7834
- Plasmidiophora* 7834
- Brassica, turnip**
  - aphids 851
  - breeding, USSR 8964
  - chemicals, as nutrients, nitrogen 1298
  - chemicals, as plant constituents
    - ascorbic acid 8273
    - glucosinolates 1534, 5246, 6281
    - goitrin 5246, 6281
    - 5-vinyloxazolidinethione 3305
  - flower, colour 871
  - Fusarium* 6618
  - genetic resources 1649
  - genetics
    - flower, colour 871
  - Plasmidiophora* 5584
  - genotype  $\times$  environmental interaction 871
  - haploidy 6280
  - heterosis 7833
  - hybridization, interspecific 871
  - linkage 5584
  - meiosis 6280
  - Plasmidiophora* 479, 3306, 3307, 5246, 5584, 6618, 8964
    - physiological races, New Zealand 4320
  - quality, for nutrition 6281
  - soil pH 6281
  - sterility, male, cytoplasmic 3304
  - tip burn 10973
  - varieties
    - India 8273
    - New Zealand 479
    - UK 8965, 9768
    - USA 851, 5244
  - viruses 8515
- Brassica, turnip  $\times$  Brassica, Chinese cabbage, hybridization 8515**
- Brassica, turnip  $\times$  Brassica, rape, hybridization, interspecific 3303**
- Brassica, turnip  $\times$  Brassica, swede, hybridization, interspecific 481, 4320, 7834**
- Brassica, turnip  $\times$  *Raphanus***
  - embryo culture 2606
  - hybridization, intergeneric 2606
  - matrocliny 2606
  - sterility and fertility 2606
- Bread fruit (see *Artocarpus*)**
- Breeders' rights (see Legislation)**
- Breeding, technique**
  - Allium*, garlic 7662
  - Arachis* 2435



**Breeding, technique contd.**

- Avena* 3991, 7860  
*Beta*, sugar beet 2341  
*Cicer* 3782, 3783, 3787  
 crop plants 47, 4804, 5769, 6851, 6857, 7845, 8681, 9401  
   book 4806  
*Dactylis* 5151  
*Festuca* 4236  
*Fragaria* 10850  
*Gossypium* 9803  
 grasses 4236  
*Hordeum* 2853, 7860  
*Lens* 11189  
*Lolium* 5151  
*Medicago* 433  
*Oryza* 5112, 8908  
*Ribes*, black currant 10850  
*Secale* 3012, 8006  
*Secale* × *Triticum*, triticale 5941  
*Solanum*, potato 6284, 10692  
*Sorghum* 8145  
*Triticum* 1729, 2853, 6897, 9428, 9433, 10264  
*Vicia*, broad bean 2665
- Bremia**  
 genetics, *Lactuca* 1546, 3689, 3691, 10063  
 heterothallism 10063  
*Lactuca* 827, 5795, 6628  
   physiological races 3690, 6627, 10063  
   Czechoslovakia 1546, 3689, 3691, 4625  
   German Federal Republic 10975  
   Netherlands 10975  
   UK 9246, 9247, 9248, 10060, 10061, 10062, 10975
- Brevicoryne**  
*Brassica*, Brussels sprouts 2616  
*Brassica*, cabbage 5590  
*Brassica*, oil crops 6438
- Brevipalpus**, *Citrus* 722
- Brewing quality** (see *Quality*, for malting and brewing)
- Brinjal** (see *Solanum*, egg plant)
- Broad bean** (see *Vicia*, broad bean)
- Broccoli**, heading (see *Brassica*, cauliflower)
- Broccoli**, sprouting (see *Brassica*, sprouting broccoli)
- Bromus**  
 agronomy, review 9730  
 altitude 3220  
 breeding 7243, 9730  
   USSR 3205  
 combining ability 4258  
 density of stand 6219, 8943  
 digestibility 6219, 8943  
 flowering 3220  
 hairs 6217  
 haploidy 3219  
 history and evolution 9729  
 humidity 6217  
 leaf, anatomy 4242  
 leaf, texture 9728  
 light, effect of 6217  
 morphology 4242  
 outcrossing 6217  
 photosynthesis 5176  
 pollination 3220  
 polyploidy 10630, 10631  
 quality, for nutrition 6219, 8943  
 seed, size 10630  
 stability 4258  
 stem 4242  
 stem, length 9728  
 taxonomy 9729  
 temperature, effect of 6217  
 tillering 7244, 9728  
 varieties, USSR 2183, 5175  
 variety trials, USSR 4237  
 water balance 5176  
 yield components 6218, 7244
- Brown mottle**, *Pennisetum* 9634
- Bruchus**, *Vigna*, minor species 2703
- Brussels sprouts** (see *Brassica*, Brussels sprouts)
- Buckwheat** (see *Fagopyrum*)
- Bud failure**, *Prunus*, almond × *Prunus*, peach 8455
- Bud mutation** (see *Mutation*)
- Bulb**, *Allium*, onion 847, 5560, 8511
- Bulb**, colour  
*Allium*, onion 4611, 8510

**Bulb, colour contd.**

- Allium*, onion × *Allium*, shallot 5557
- Bulb**, size, *Allium*, onion 5555
- Bulb**, weight, *Allium*, onion 8512
- Bursaphelenchus*, *Pinus* 6563
- Busseola*, *Zea*, maize 1925
- Buxus*, breeding, Georgian SSR 5512
- Byturus*, *Rubus*, raspberry 10906
- Cabbage** (see *Brassica*, cabbage)
- Cabbage**, Chinese (see *Brassica*, Chinese cabbage)
- Cabbage**, red (see *Brassica*, red cabbage)
- Cacao** (see *Theobroma*)
- Cadra*, *Phoenix* 2518
- Cajanus**  
 aneuploidy 5713  
 anther, colour 2797  
 anther culture 5713  
 breeding  
   India 1646, 4761  
   Trinidad and Tobago 11192  
 centres of origin or diversity 4763  
 chemicals, as plant constituents  
   aminoacids 1018  
   lysine 1018  
   protein 1018, 1608, 6819  
   tannin 5639  
   tryptophan 1018  
 chemicals, general effects, ethyl methanesulphonate 990  
 chemicals, mutagenic effects, ethyl methanesulphonate 1608  
*Colletotrichum* 2764  
 combining ability 3797, 3798  
   yield components 10187  
 corolla, colour 4760  
 density of stand 4765, 6811  
 development, abnormal 2756  
 diallel analysis 3798  
 flower, size 6817  
 flowering 4760  
 forage 6811  
 fruit, number 1608, 3797  
 fruit, shape 11191  
*Fusarium* 2797  
*Fusarium*, technique 11075  
 γ rays 1608  
 genetic variance, yield components 10187  
 genetics  
   corolla, colour 4760  
   flowering 4760  
   fruit, shape 11191  
   habit 4760  
   height 4760  
   leaf 11191  
   leaf, shape 4760, 10186  
   *Phytophthora* 2797  
   seed, colour 11191  
   seed, shape 11191  
 genotype × environmental interaction 9338  
 growth period 3796, 3797, 3798, 9338, 11192  
 habit 3796, 4760  
 haploidy 5713  
 harvest index 11073  
 height 4760, 6816, 9338  
 heritability 6813  
 heterosis 3797  
 history and evolution 4763, 6819  
 inflorescence, number 1608  
 leaf 11191  
 leaf, shape 4760, 10186  
 leaf, size 6816, 6817, 7798  
 linkage 4760  
   fruit, shape 11191  
   leaf 11191  
   seed, colour 11191  
   seed, shape 11191  
 meiosis 6817  
 migration 4763  
 multivariate analysis 9338  
 mutation 6816  
   leaf, size 7798  
 mutation, induced 1608, 4761  
 photoperiodism 11192  
*Phytophthora* 2797, 7801  
*Phytophthora*, technique 11075  
 polyploidy 6817  
 quality, for cooking 2760  
*Rhizobium* 2797  
 salinity 2797

**Cajanus contd.**

- seed 6819  
 seed, colour 4760, 11191  
 seed, shape 11191  
 seed, size 1565, 4761  
 seed, weight 4761  
 sowing and planting date 2764, 4765, 6811, 9338, 11192  
 sterility and fertility 2756, 2797, 6817  
 sterility, male 2797  
 variety trials, Australia 6811  
 viruses 2797  
   physiological races 2765  
 yield components 2757, 3796, 3797, 3798, 6813, 6814, 9338, 10187
- Cajanus** × *Atylosia*, hybridization, intergeneric 2797, 4763, 6815
- Cajanus** × *Phaseolus*, hybridization, intergeneric 4677
- Calamagrostis**  
*Fusarium* 5202  
 polyploidy 5202  
 synthetic varieties 5202  
*Typhula* 5202  
 varieties, USA 5202
- Calliphora**, *Brassica*, Brussels sprouts 7674
- Callosobruchus**  
*Vicia*, broad bean 3732  
*Vigna*, cowpea 1575, 2702, 5669, 9304  
*Vigna*, minor species 1644, 2711
- Calocoris**, *Sorghum* 2794, 8144
- Calyx**  
*Fragaria* 760  
*Gossypium* 2294  
*Linum* 7397  
*Malus* 3527
- Calyx**, size  
*Hibiscus* 9020  
*Linum* 7397
- Camellia**  
 aneuploidy 9406, 9869  
 anther culture 10798  
 apomixis 2392, 10213  
 β rays 2393, 9866  
 breeding  
   Georgian SSR 9864, 10213  
   Kenya 2384  
 cell division 9867  
 chemicals, as plant constituents  
   anthocyanins 10217  
   catechins 2394, 10217  
   chlorophyll 6421  
   lipoxxygenase 7479  
   tannin 10217  
 chemicals, cytological effects, ammonium sulphate 1014  
 chemicals, mutagenic effects, *N*-nitroso-*N*-methylurea 9866  
 chimeras 1677  
 chromosomes, aberrations 1014, 2387, 2388, 9867, 10216  
 chromosomes, morphology 9868  
 development and growth 9046  
 γ rays 2387, 2388, 2389, 2391, 10216  
 genetics  
   chlorophyll 6421  
   leaf 6421  
   sterility and fertility 4448  
 genotype × environmental interaction 7477  
 germination 7478, 9866  
 growth period 9046  
 habit 2393  
 haploidy 2392  
 heat and drought resistance 5359, 10799  
 height 2393, 9870  
 heritability  
   height 9870  
   internode, length 9870  
   leaf, size 9870  
 internode, length 9870  
 leaf 5358, 6421, 9046  
 leaf, colour 2391, 2393, 9046  
 leaf, shape 2393  
 leaf, size 624, 2391, 2393, 9046, 9870  
 mixoploidy 9869  
 multiple alleles 4448  
 mutation, induced 1677, 2391, 2393, 9406, 9866  
 nucleus, number 9867  
 photosynthesis 9046  
 polyploidy 2389, 9406, 9867, 9869  
 polyploidy, technique 2390



**Camellia contd.**

- quality, of beverage 625, 1386, 2395, 7479, 9406, 9870, 10213, 10217
- radiation 1677, 2392, 9406, 10213
- root 10799
- seed storage 7478
- seedlings 9046
- sexual reproduction 1386, 9870, 10217
- stability 7477
- sterility and fertility 4448
- stomata 5359
- stomata, number 624
- stomata, size 624
- tissue culture 10798
- varieties, India 2385, 2386, 9865
- varieties, classification 5358
- variety trials
  - India 9865
  - USSR 10218
- vegetative reproduction 1386, 10217
- water balance 5359
- Xyleborus* 9871

**Camptomeris, Leucaena 3633****Canary grass (see Phalaris)****Canavalia**

- chromosomes, number 432
- genetics, leaf, number of parts 991
- leaf, number of parts 991

**Cannabis**

- chemicals, as plant constituents
- cannabinoids, technique 9830
- cannabinol 9829
- cytokinins 10734
- protein 10734
- tetrahydrocannabinol 559, 2318, 5315, 9829
- chemicals, fertility and sex, effects
  - 6-benzylaminopurine 4399
  - cobalt chloride 1355
  - GA 4399
  - streptovaricin 6365
- embryo culture 4399
- flower 1355
- flower, number 2318
- glands 9830
- growth period 2318
- height 2318
- hybridization, interspecific 2318
- quality, of fibre 9831
- sex 1355, 4399, 9831, 10734
- taxonomy 2318

**Canning quality (see Quality, for canning)****Canopy**

- Beta*, sugar beet 4413
- Gossypium* 1343
- Phaseolus* 8579
- Triticum* 1712, 8714

**Cantaloupe (see Cucumis, melon)****Capitophorus, Fragaria 5481****Capreolus, Salix 9186****Capsicum**

- andrecium, anatomy 6849
- aneuploidy 58, 1417, 8379
- anther 1015, 9091
- anther culture 653, 9906
- apomixis 2586
- Aspergillus* 8380
- breeding, USA 5399
- chemicals, as plant constituents
  - anthocyanins 8377
  - ascorbic acid 654, 656, 2452, 7521
  - capsaicin 3485
  - capsidiol 9909
  - carotene 2452, 9089
  - citrulline 8380
  - enzymes 657
  - methionine 8380
  - miscellaneous 7523
  - oil, fatty 655
  - phenylalanine 8380
  - starch 8668
  - sugar 7521
  - xylose 8380
- chemicals, cytological effects, nitrous oxide 1417
- chemicals, fertility and sex, effects
  - dalapon 9091
  - 2,3-dichloroisobutyrate, sodium 9091
  - maleic hydrazide 9091
- chemicals, general effects, *Phytophthora* extract 9094
- chemicals, mutagenic effects
  - dimethyl sulphate 7521, 7522

**Capsicum contd.**

- chemicals, mutagenic effects *contd.*
  - ethyl methanesulphonate 1417
  - ethyleneimine 7521
  - miscellaneous 1521
  - N*-nitroso-*N*-ethylurea 7521
  - N*-nitroso-*N*-methylurea 9089
- chromosome translocation 58, 10842
- chromosomes, aberrations 824, 1418, 1419, 5402
- cold, effect of 6467
- Colletotrichum* 9093
- combining ability 2586
- density of stand 9907
- determinate and indeterminate habit 2452
- embryo 9090
- endosperm 9090
- flower, review 653
- flowering, review 653
- fruit, colour 654, 655, 1521, 2453
- fruit, shape 1521
- fruit, weight 10840
- Fusarium* 8380
- $\gamma$  rays 1417, 5402, 8377, 9090, 10841, 10842
- gene location 1417
- genetic variance 6467
- genetics
  - anthocyanins 8377
  - Phytophthora* 6468
  - sterility and fertility 1417
  - sterility, male 9092
  - viruses 7520, 10969
- germination 6467
- glass and plastic, cultivation under 1520
- growth period 3485, 7522
- haploidy 1417, 1418, 2586, 8379, 9906
- height 3485
- heritability 3485, 6467
- yield components 9907
- heterosis 5401
- yield components 9088
- history and evolution 1420
- hybrid varieties 8495
- hybridization, interspecific 2452, 7520, 10843, 10969
- maternal effects, *Verticillium* 10843
- meiosis 1418, 8379, 9090, 10842
- Meloidogyne* 4494
- physiological races 3487
- multiple alleles 7520
- viruses 10969
- multivariate analysis 9908
- mutation, induced 1417, 1521, 7521, 7522, 7846
- anthocyanins 8377
- carotene 9089
- fruit, number 9089
- fruit, size 9089
- height 9089
- sterility, male 10841
- sterility, male, cytoplasmic 10841
- mycoplasmas 824
- photosynthesis 7521
- Phytophthora* 2586, 6468, 8500, 9094, 9909
- physiological races 9910
- plant introduction
  - from USSR 9905
  - to Cuba 9214, 9905
- pollination 653, 3485
- pollination, technique 6867
- polyembryony and twinning 1417
- polyploidy 8379
- quality, for drying 654, 655
- quality, for food processing 655, 656, 2453
- quality, for fresh consumption 5401, 7523, 8377
- quality, for storage 656, 2453
- selection, artificial 2586, 10840
- sterility and fertility 1417, 3485, 10842, 10969
- sterility, male 653, 1015, 6849, 8668, 9092, 10841
- sterility, male, cytoplasmic 5401, 8668, 10841
- taxonomy 657, 1420, 5403
- Trichoderma* 8380
- varieties 7846
- Albania 8378
- Bulgaria 8377

**Capsicum contd.****varieties contd.**

- Hungary 658
- Romania 6465, 6466
- USA 8495
- variety trials
  - Cuba 9905
  - India 5400
  - Tunisia 1520
- vascular tissue 1015
- Verticillium* 3486, 6466, 10843
- viruses 658, 2586, 3486, 5404, 7520, 7524, 8495, 8500, 10969
- physiological races, French West Indies 9911
- X rays 1419, 10841
- yield components 9088, 9907, 9908, 10840

**Caraway (see Carum)****Cardamom (see Elettaria)****Carica**

- chemicals, as plant constituents
  - fructose 9143
  - glucose 9143
  - starch 9143
  - sucrose 9143
  - sugar 7577
  - vitamins 9143
- embryo culture 7577
- fruit, size 9143
- $\gamma$  rays 1469
- germination 1469, 9142
- hybridization, interspecific 7577
- pollination, technique 5462
- protoplasts 5463
- sex 1469
- tissue culture 5463
- varieties, India 9143
- viruses 5463, 7577, 8421

**Carica  $\times$  Passiflora, hybridization, intergeneric 2464****Carpel (see Gynecium)****Carrot (see Daucus)****Carthamus**

- Alternaria* 2427
- aneuploidy 5389
- breeding, USA 5387
- chemicals, as plant constituents, anthocyanins 4477
- chemicals, general effects, *Alternaria* toxin 2427
- flower, colour 4477
- fruit 4477
- Fusarium* 5387
- physiological races 4479
- genetics
  - flower, colour 4477
  - habit 2425
  - seed 4477
  - sterility, male 4478
- genotype  $\times$  environmental interaction 5388, 8370
- growth period 2425
- habit 2425
- heritability 2426, 4477, 5390
- inflorescence, number 2425
- multivariate analysis 7497
- mutation 2425
- Phytophthora* 5387, 10827
- seed 4477
- spines 2428
- stability 6454, 7497, 8370
- sterility, male 4478, 5387
- Uroleucon* 2428
- variety trials, USSR 630
- Verticillium* 10808
- viruses 9073
- yield components 2426, 5390, 6454, 8370, 10826

**Carum**

- chemicals, as plant constituents
  - carvone 8654
  - oil, essential 8654, 10192, 11198, 11201
- genotype  $\times$  environmental interaction 10192, 11198
- germplasm banks, Ukrainian SSR 9903
- growth period 10192, 11198
- pollen, shape 8654
- pollen, size 8654
- polyploidy 8654
- seed, size 8654
- yield components 10192, 11198



- Carya**  
*Cercospora* 10020  
 chilling requirement 1494  
 dormancy 1494  
 genetic resources 10849  
 insects, review 9171  
 varieties, USA 5507, 10019
- Caryocinesis** (see Cell division)
- Caryopsis** (see Seed)
- Caryotype** (see Chromosomes, morphology)
- Cashew** (see *Anacardium*)
- Cassava** (see *Manihot*)
- Cassia**  
 chromosomes, number 432  
 hybridization, interspecific 2455  
 meiosis 2455  
 sterility and fertility 2455  
 yield components 2455
- Castanea**  
 breeding, Georgian SSR 5512  
*Cylindrosporium* 6561  
*Endothia*, physiological races 2558  
 genetic resources 10849  
 pathology 7628  
 varieties, USA 7619
- Castor oil plant** (see *Ricinus*)
- Cauliflower** (see *Brassica*, cauliflower)
- Cecidophypsis**, *Ribes*, black currant 3500, 5472
- Cedar** (see *Cedrus*)
- Cedrus**  
 habit 10041  
 polymorphism 10041
- Celeriac** (see *Apium*)
- Celery** (see *Apium*)
- Cell, colour**, *Nicotiana* 2363
- Cell culture** 9391  
*Acer* 8471  
*Apium* 3692  
*Arachis* 7513, 9079  
 book 11203  
*Brassica*, rape 5577  
 crop plants 21, 5790, 9359  
*Datura* 4790, 5407  
*Daucus* 838, 8503  
*Glycine* 6755, 6759  
*Gossypium* 2298  
*Lycopersicon* 907  
*Medicago* 7278, 10662, 10663  
*Nicotiana* 594, 606, 2363, 8337, 8338, 9038, 9042, 10199, 10793  
*Pennisetum* 7123  
*Pisum* 6675  
*Solanum*, potato 2265, 9782  
*Trifolium* 10662  
*Trifolium*, Alsike clover 10670  
*Trifolium*, minor species 10670, 10676  
*Trifolium*, red clover 3282, 3283  
*Trifolium*, white clover 10670  
*Triticum* 6953  
*Vigna*, cowpea 6675  
*Vitis* 1491  
*Zea*, maize 21, 11203
- Cell division** 3821  
*Allium*, garlic 6831  
*Allium*, onion 846, 2784, 2785, 5740  
*Avena* 10404  
*Beta*, sugar beet 5326  
*Camellia* 9867  
*Cicer* 11185  
*Corchorus* 7399  
*Datura* 8381  
*Festuca* × *Lolium* 1247  
*Glycine* 8602  
*Helianthus*, sunflower 4474  
*Hordeum* 301, 1045, 4091, 6087, 8102, 8843, 9604, 10538, 10540, 10549  
*Hordeum* × *Secale* 1045, 8099  
*Hordeum* × *Triticum* 7865  
*Nicotiana* 10783  
*Nigella* 5405  
*Onobrychis* 467  
*Oryza* 9679  
*Pennisetum* 1182  
*Pisum* 975  
*Secale* 1048, 1912  
*Secale* × *Triticum* 1912  
*Secale* × *Triticum*, triticales 1048  
*Trigonella* 10681  
*Triticum* 79, 1048  
*Vicia*, broad bean 5645  
*Zea*, maize 3040, 4972, 7045, 9549, 10461
- Cell division, technique**, *Nicotiana* 2370
- Cell inclusions**  
*Salix* 5529  
*Triticum* 7940  
*Vicia*, broad bean 11082
- Cell, number**  
*Pisum* 975  
*Secale* 8786, 10418
- Cell, size**  
*Beta*, sugar beet 2340, 5326, 7423  
*Malus* 10861  
*Medicago* 7276  
*Secale* 1912, 10396  
*Secale* × *Triticum* 1912  
*Secale* × *Triticum*, triticales 10396  
*Sorghum* 333  
*Triticum* 10396
- Cell, weight**, *Secale* 10418
- Celosia**  
 breeding 930  
 chemicals, as plant constituents  
   ascorbic acid 5637  
   protein 5637  
 chromosomes, number 930  
 taxonomy 930
- Cenchrus**  
 apomixis 3229, 7267, 7271  
 chemicals, fertility and sex, effects, maleic hydrazide 7267  
 ecotypes 2199  
 embryo sac 7267  
 genetics, apomixis 7271  
 germination 2199  
 gynecium 3229  
 polyploidy 3229  
 seed 2199  
 sex 7267  
 tissue culture 2200
- Centres of origin or diversity** 9361 (see also History and evolution)  
*Arachis* 6456  
*Avena* 9503  
*Cajanus* 4763  
*Cocos* 6525  
 crop plants 5735  
*Desmodium* 2247  
*Euchlaena* 9580  
*Fagopyrum* 6196  
*Hordeum* 1155, 1699  
*Ipomoea* 2283, 3336  
*Oryza* 5115  
*Phaseolus* 6702, 6717  
*Prunus*, almond 5509  
*Psophocarpus* 6821, 8625  
*Secale* 9517  
*Solanum*, egg plant 1561  
*Theobroma*, review 1388  
*Tripsacum* 9580  
*Triticum* 1699, 1821  
*Zea*, maize 9580
- Centromere**  
*Humulus* 2397  
*Pennisetum* 2065  
*Secale* × *Triticum*, triticales 7981  
*Tripsacum* × *Zea*, maize 1951  
*Vicia*, broad bean 5645
- Centromere, size**, *Festuca* 4264
- Centrosema**, chromosomes, number 432
- Cephaleuros**, *Psidium* 5459
- Cephalosporium**, *Zea*, maize 8059
- Cephus**, *Triticum* 6973, 8773, 9493
- Cerasus** (see *Prunus*, cherry)
- Ceratitidis**, *Mangifera* 5461
- Ceratocystis**  
*Quercus* 2564  
*Theobroma* 4451, 5363  
*Ulmus* 3629  
 physiological races 2571
- Ceratosphaeria**, *Stenotaphrum* 6237
- Cercospora** (see also *Mycosphaerella*)  
*Beta*, sugar beet 574, 3393, 4418, 6392, 9844, 10763  
*Carya* 10020  
*Daucus* 835  
*Dioscorea* 1635  
*Glycine* 3746, 4741, 8597  
 physiological races, USA 8611  
*Gossypium* 2313  
*Hibiscus* 8319  
*Oryza* 2164, 9664  
*Pennisetum* 9634  
*Solanum*, egg plant 6671  
*Sorghum* 4157, 10585
- Cercospora contd.**  
*Vigna*, cowpea 3740  
*Vigna*, minor species 2703, 6744
- Cercospora, technique**, *Nicotiana* 2378
- Cercosporiella**, *Triticum* 1849
- Cercosporidium**  
*Arachis* 7507  
*Manihot* 4796
- Cereals**  
 anther culture 8695  
 breeding 1025, 1719  
   Denmark 10239  
   German Democratic Republic 7861  
   India 2854  
   Iran 2854  
   Kenya 2854  
   Mexico 2854  
   Norway 1011  
   Pakistan 2854  
   Sweden 1011  
   Syrian Arab Republic 2854  
   Turkey 2854  
   USSR 43, 1041, 3847, 3880, 6859  
 chemicals, as nutrients  
   nitrate, review 84  
   nitrogen 1714  
 chemicals, as plant constituents  
   albumin 1716  
   aminoacids 80, 1023, 1716  
    $\alpha$ -amylase, technique 10246  
   amylose 2155  
   carbohydrates 1715  
   chlorophyll 80  
    $\beta$ -diketones 7872  
   gliadin 1047  
   globulin 1716  
   glutelin 1716  
   growth regulators, review 1709  
   nitrate reductase, review 84  
   nitrogen 86  
     review 84  
   nitrogenase 10199  
   prolamin 1047, 1716, 10242  
     review 1033  
   protein 80, 86, 1018, 1019, 1025, 1047, 1715, 1716, 9426  
     review 1021  
   protein, technique 76, 1023  
     review 6882  
   starch, review 80  
   sucrose, review 80  
   wax 7872  
 chemicals, general effects, aluminium 10235  
*Cochliobolus*, physiological races 8705  
 cold, effect of 61  
 composite varieties 4826  
 development and growth 1706  
*Drechslera*, physiological races 8705  
*Erysiphe* 4829  
 fungi 9417  
   physiological races 9415  
   USSR 9427  
 gene location 1033  
 genetic resources 6856  
 genetics, amylose 2155  
 germplasm banks, Canada 7844  
 haploidy 3881  
 heat and drought resistance, review 1721  
*Helminthosporium*  
   physiological races 8705  
   review 8705  
*Heterodera* 94  
 history and evolution 1021, 1719  
 history and evolution, technique 10242  
 hybridization, intergeneric 82, 3881, 5804  
   review 75  
 hybridization, interspecific 82, 3881  
   review 75  
 inflorescence, review 1706  
 insects, technique 1725  
 linkage 1033  
 lodging, technique 5816  
*Mayetiola*, physiological races 4831  
 mixtures of crops or genotypes 5815  
 mutation, induced 1029, 1046  
   book 6866  
 nondisjunction 3208  
*Oulema* 9419  
 ovule, size 5809  
 pathology 3869, 4826, 5815  
 photosynthesis 80



**Cereals contd.**

- photosynthesis *contd.*
    - review 1711
  - physiology 8694
    - symposium 78, 83, 88, 1705, 1710, 1720
  - pollen 61, 82
    - pollen, technique 5804, 5810
  - pollination 1706
  - polyploidy 82, 3881
  - protoplasts, technique 8698
  - Puccinia*, review 7874
  - Pyrenophora*, physiological races 8705
  - quality, for nutrition 1018, 1716
  - radiation 1046
  - respiration 1714, 1715
  - salinity 7238
  - seed 80
  - seed production 6874
    - selection, artificial 5799
  - Setosphaeria*, physiological races 8705
  - sexual reproduction, review 10626
  - soil pH 10235
  - stem 1715
  - sterility and fertility 75, 82, 3881
  - sterility and fertility, technique 5804
  - taxonomy 7872
  - toxic soils 10235
  - varieties, classification 76, 3884
    - review 1047
  - variety trials
    - Denmark 3840
    - Ethiopia 1701
  - variety trials, technique 7862, 8693
  - vernalization, technique 2859
  - water balance 1722
  - yield 10247
    - yield components 86, 8694
- Cerodontha*, *Oryza* 8214**
- Chaenomeles***
- chemicals, as plant constituents
    - ascorbic acid 2485
    - pectin 2485
  - $\gamma$  rays 2485
  - habit 2485
  - mutation, induced 2485
- Chaetocnema*, *Triticum* 209**
- Chalcodermis*, *Vigna*, cowpea 8592**
- Chamaecyparis***
- chemicals, as plant constituents
    - peroxidase 2584
    - phenols 2584
- Chamaecyparis*  $\times$  *Cupressus***
- chemicals, as plant constituents
    - oil, essential 5530
    - terpenoids 5530
  - hybridization, intergeneric 5530
- Chemicals, as nutrients**
- aluminium
    - Nicotiana* 4437
    - Phaseolus* 10098
  - aminoacids, *Nicotiana* 2376
  - ammonium
    - Hordeum* 7104
    - Sorghum* 9649
  - boron
    - Fragaria* 757
    - Oryza* 8157
    - Triticum* 188
  - calcium
    - Brassica*, cabbage 10982
    - Lycopersicon* 4638, 8543
    - Malus* 2483
    - Medicago* 3269
    - Oryza* 4815
    - Persea* 5464, 5465
    - Phaseolus* 4815
    - Sorghum* 4815, 7149
    - Triticum* 4815
    - Vigna*, cowpea 11111
    - Vitis* 4568
    - Zea*, maize 4815
  - copper
    - Avena* 229
    - Oryza* 6138
    - Secale* 3000
    - Secale*  $\times$  *Triticum*, tritcale 3000
    - Triticum* 3000
  - iron
    - Glycine* 3764, 4733, 4734, 5674, 5676, 11162
    - Morus* 9139
    - Oryza* 6138, 7208, 8157, 8193

**Chemicals, as nutrients contd.**

- iron *contd.*
  - Quercus* 1501
  - Sorghum* 9649
  - Vitis* 7610
- magnesium
  - Brassica*, cabbage 10982
  - Lycopersicon* 4638
  - Malus* 2483
  - Oryza* 4815
  - Phaseolus* 4815
  - Sorghum* 4815, 7149
  - Triticum* 4815
  - Vitis* 4568
  - Zea*, maize 4815
- maltose, *Glycine* 6755
- manganese
  - Brassica*, rape 4466
  - Fragaria* 757
  - Nicotiana* 4437
  - Phaseolus* 10098
  - Vigna*, cowpea 11111
  - Vitis* 4568
- manures, *Solanum*, potato 8981
- miscellaneous
  - crop plants 1685
    - symposium 8690
  - Glycine* 11163
  - Gossypium* 4370
  - Lycopersicon* 9273
  - Oryza* 6145
  - Triticum* 152, 6890
  - Zea*, maize 7047, 8056
- molybdenum, *Triticum* 10357
- nitrate
  - cereals, review 84
  - Hordeum* 311, 7104
  - Secale* 10250
  - Secale*  $\times$  *Triticum*, tritcale 10250
  - Sorghum* 9649
  - Triticum* 6942, 10250
  - Zea*, maize 4975
- nitrogen
  - Alnus* 3630
  - Arachis* 1415, 2795, 3479, 7517
  - Astragalus* 9745
  - Avena* 5967, 7990
  - Beta*, sugar beet 7427, 9843
  - Brassica*, turnip 1298
  - cereals 1714
  - Cicer* 4678
  - Dactylis* 419, 420, 4252, 9722
  - Desmodium* 5241
  - Eleusine* 9637
  - Festuca* 8948
  - Fragaria* 757
  - Glycine* 970, 2730, 2731, 2733, 3759, 3761, 3765, 3767, 5697, 6763, 6772, 6774, 10146, 11120, 11121, 11122, 11151, 11159
  - grasses 5159
  - Helianthus*, sunflower 5385
  - Hordeum* 89, 1038, 1167, 5035, 5042, 8863, 8864, 9615
  - Lolium* 7246, 7247
  - Lotus* 474, 475, 476
  - Lupinus* 3296
  - Lycopersicon* 4638
  - Manihot* 3409, 3413
  - Medicago* 444, 1273, 3247, 3252, 4287, 5221, 5222, 6249, 9745, 10664, 10665
  - Nicotiana* 613, 5356, 7459, 7460, 8346
  - Onobrychis* 3292, 9745
  - Oryza* 1220, 1239, 1632, 1686, 2848, 3163, 3189, 3191, 3831, 4213, 4215, 4793, 5108, 5132, 5136, 6156, 6174, 8157, 8192, 8213, 9657, 10610
  - Panicum* 9620
  - Pennisetum* 2793, 4110, 8874
  - Phaseolus* 6719, 8582, 9295, 10099
  - Pisum* 7786, 10176
  - Pseudotsuga* 819
  - pulses 1686, 4678
  - Ricinus* 2407
  - Secale* 1913, 8009, 8010
  - Solanum*, potato 505, 1309, 4344, 8289, 8290, 8291, 8981, 9788
  - Sorghum* 339, 340, 4153, 4154, 4184, 6128, 7149, 7170, 8139
  - Trifolium*, crimson clover 7301
  - Trifolium*, red clover 3277

**Chemicals, as nutrients contd.**

- nitrogen *contd.*
    - Trifolium*, white clover 463, 1285, 3277, 8262
    - Triticum* 147, 1097, 1102, 1714, 1752, 1807, 1822, 1823, 2919, 2957, 2958, 3886, 3928, 3957, 5903, 5905, 6947, 6949, 6956, 6967, 7937, 8740
    - Vicia*, broad bean 4682
    - Vigna*, cowpea 5667
    - Vigna*, minor species 4678, 8595
    - Zea*, maize 1037, 1921, 1992, 3061, 3062, 3063, 3065, 3392, 5982, 6006, 8038, 8824, 8825, 9527, 9583, 9584, 10470, 10480, 10487
  - phosphate, *Oryza* 8157
  - phosphorus
    - Aegilops* 5904
    - Avena* 7990
    - Lycopersicon* 4638
    - Manihot* 3409, 3413
    - Medicago* 1273, 4285
    - Nicotiana* 613, 5356, 7459, 7460
    - Oryza* 3191, 4793, 4815, 5108, 8156, 8193, 9657
    - Panicum* 9620
    - Pennisetum* 4110
    - Phaseolus* 3865, 4815, 10098, 10109
    - Ricinus* 2407
    - Secale* 77
    - Solanum*, potato 8290, 8291, 8292, 8981, 9788
    - Sorghum* 4184, 4815, 7149, 8139, 9649
    - Trifolium*, white clover 8263
    - Triticum* 77, 147, 2938, 2958, 3865, 4815, 5884, 5904, 5905, 6947, 6967, 8740
    - Zea*, maize 77, 1921, 4815, 5000, 6006, 8828, 9585, 10480, 10487
  - potassium
    - Avena* 7990
    - Brassica*, cabbage 10982
    - Eleusine* 9637
    - Fragaria* 757
    - Hordeum* 311
    - Lycopersicon* 4638, 8553, 8557
    - Malus* 2483
    - Manihot* 3409, 3413
    - Medicago* 1273
    - Nicotiana* 613, 5356, 7459, 7460
    - Oryza* 3191, 5108, 9657
    - Panicum* 9620
    - Pennisetum* 4110
    - Phaseolus* 2693
    - Solanum*, potato 1309, 8290, 8291, 8292, 8981, 9788
    - Sorghum* 3154, 4184, 7149
    - Triticum* 112, 147, 2958, 5905, 6967, 8740
    - Vitis* 4568
    - Zea*, maize 1921, 5000, 6006, 10480, 10487
  - potassium, technique, *Hordeum* 10545
  - rubidium, *Medicago* 3269
  - silicates, *Triticum* 7952
  - sucrose, *Glycine* 6755
  - sulphate, *Zea*, maize 1969
  - sulphur, *Sorghum* 7149
  - trace elements, *Triticum* 7952
  - urea, *Solanum*, potato 2270
  - zinc
    - Oryza* 6138, 8156, 8157, 8193
    - Secale* 3000
    - Secale*  $\times$  *Triticum*, tritcale 3000
    - Triticum* 3000
    - Vitis* 4568
    - Zea*, maize 6050
- Chemicals, as plant constituents**
- ABA**
- Glycine* 5794
  - Hordeum* 1709
  - Lycopersicon* 3711
  - Phaseolus* 2690
  - Pseudotsuga* 4597
  - Sorghum* 2087, 7156
  - Triticum* 1101, 1709, 7890, 7934
  - Zea*, maize 3042, 4037, 4048, 4981
- acetaldehyde, *Sorghum* 3151
- o-acetylserinesulphydrylase, *Zea*, maize 4034
- acid invertase
  - Beta*, sugar beet 4415



Chemicals, as plant constituents *contd.*acid invertase *contd.**Cynodon* 421

acid phosphatase

*Amaranthus* 6198*Anthoxanthum* 3234, 4246*Brassica* 865, 3667*Brassica*, Brussels sprouts 2608, 3675*Brassica*, cabbage 2608, 3675*Brassica*, kale 2608*Brassica*, sprouting broccoli 2608*Coffea* 8353*Dactylis* 418*Deschampsia* 4246*Fagus* 6579*Hordeum* × *Triticum* 10531*Lycopersicon* 898*Lycopersicon* × *Solanum* 898*Medicago* 1266*Oryza* 1217, 2141, 2840, 2843, 5125,

7205

*Picea* 815*Pinus* 812, 6585, 7641*Triticum* 133*Vitis* 9164

acids

*Achras* 4562*Ananas* 2533*Citrus* 8414*Citrus*, grapefruit 9963*Citrus*, lemon 9963*Citrus*, mandarin 10219*Citrus*, pomelo 9963*Cydonia* 4505, 6496*Daucus* 5550*Hordeum* 311*Lycopersicon* 2639, 6651, 6657, 11054*Lycopersicon* × *Solanum* 7713*Malus* 2474, 4505*Morus* 3580*Prunus*, cherry 8405, 9122*Prunus*, peach 2499, 4531*Prunus*, plum 707, 8398, 8399*Psidium* 4541*Punica* 2537*Pyrus* 4505, 6494*Rubus*, blackberry 742*Rubus*, raspberry 4544*Sorghum* 4174*Trigonella* 6278*Vitis* 2550, 2553, 4573, 6553, 6554,

7607, 7611, 7615

 $\alpha$ -acids, *Humulus* 10807aconitase, *Pinus* 6585

adenosine diphosphate glucose

phosphorylase, *Zea*, maize 4984

adenosine triphosphatase

*Nicotiana* 8332*Zea*, maize 6011

adenosine triphosphate

*Triticum* 5886*Zea*, maize 4040adenosine triphosphate sulphurylase, *Zea*,

maize 4034

ADP (UDP) sucrose synthetase, *Hordeum*

10543

ADPG-starch glucosyltransferase, *Zea*,

maize 1996

ADPglucose pyrophosphorylase, *Zea*,

maize 6009

ADPglucose-starch glucosyltransferase,

*Zea*, maize 1996

ADPglucose (UDPglucose) starch

synthetase, *Hordeum* 8118aflatoxin, *Zea*, maize 4068

agglutinins, crop plants 2821

alanine

*Hordeum* 1163*Nicotiana* 8345*Triticum* 6955 $\beta$ -alanine, *Cynodon* 421

albumin

cereals 1716

*Hordeum* 307, 317, 1036, 1163, 5043,

5046, 5047, 6096

Leguminosae 10090

*Oryza* 373*Pisum* 5705, 8619, 10090*Secale* 8011*Sorghum* 1036*Triticum* 1091*Vicia* 10090*Vigna*, cowpea 7754Chemicals, as plant constituents *contd.*albumin *contd.**Voandzeia* 6277*Zea*, maize 1032, 1036, 1992, 6048,

8822, 9579, 10480

alcohol dehydrogenase

*Aegilops* 1087, 9495*Agropyron* 8950*Agropyron* × *Triticum* 8950*Amaranthus* 6198*Hordeum* 5036, 5851, 8858*Hordeum* × *Triticum* 5851*Lycopersicon* 3713, 5621, 11041,

11043

*Pennisetum* 8128, 10558*Phoenix* 3584*Pinus* 9190, 10954*Triticum* 1087, 4845, 8950, 10303*Zea*, maize 253, 1953, 1954, 1977,

3032, 3050, 4013, 4977, 5990, 8804,

10440, 10479

alcohols, *Zea*, maize 10469

aldehydes

*Sorghum* 4150*Zea*, maize 10469alkaline invertase, *Beta*, sugar beet 4415alkaline phosphatase, *Solanum*, potato

7316

alkaloids

*Atropa* 9919, 9920*Festuca* 7234*Lathyrus* 7731*Lupinus* 470, 1289, 3293, 3297, 4810,

7273, 7306, 8268

*Nicotiana* 608, 609, 3435, 4439, 5347,

7447, 8346, 10771, 10772

*Papaver* 9877, 9878*Phalaris* 7234, 7266*Solanum* 662alkaloids, technique, *Nicotiana* 2381

alkanes

*Averrhoa* 5487*Nicotiana* 6419*Pinus* 2580*Triticum* 2915alkenes, *Averrhoa* 5487alkylating agents, *Nicotiana* 612allantoin, *Glycine* 1638aluminium, *Nicotiana* 4437amino compounds, *Arachis* 7519

aminoacids

*Aegilops* 7930*Agrostis* 6214*Beta*, sugar beet 10768*Brassica*, Brussels sprouts 2616*Cajanus* 1018

cereals 80, 1023, 1716

*Cicer* 3789*Citrus*, orange 1460*Cucumis*, cucumber 10042*Cucumis*, melon 10042*Eleusine* 2075*Fagopyrum* 8932*Glycine* 6771, 7772*Hordeum* 1029, 1030, 4099, 5046,

8862, 9614

*Lolium* 7232*Lupinus* 1289*Lycopersicon* 906, 4659, 6661, 7723,

10042

*Lycopersicon* × *Solanum* 7713*Manihot* 3408*Medicago* 5220, 10663*Morus* 6520*Nicotiana* 8345*Olea* 7502*Oryza* 375, 1018, 1227, 5134, 5146,

8171, 8918

*Pennisetum* 4112, 6118*Phaseolus* 2692, 5658, 11103*Picea* 6593*Pisum* 982, 9327*Ricinus* 2407*Saccharum* 10752*Secale* × *Triticum*, tritcale 5952*Solanum*, potato 1309, 8980*Sorghum* 1018, 1029, 1030, 1190,

4174

*Theobroma* 5362*Triticum* 1102, 3963, 4848, 6955,

6958, 7930

*Vigna*, cowpea 1018*Vigna*, minor species 10126Chemicals, as plant constituents *contd.*aminoacids *contd.**Zea*, maize 274, 1018, 1029, 1030,

1984, 3058, 4998, 6049, 7044, 8815,

9578

aminoacids, sulphur

*Triticum* 10338*Vicia*, broad bean 11084

aminoacids, technique

crop plants 1023

*Zea*, maize 10481 $\delta$ -aminolevulinate, *Hordeum* 3110

aminopeptidase

*Hordeum* × *Triticum* 5851*Zea*, maize 1132, 1983, 4977, 7055

amygdalin, stone fruits 9952

amylase

*Glycine* 5681*Secale* 8790, 9516*Triticum* 2909, 10332*Vicia* 6691*Vicia*, broad bean 8571*Vicia*, vetch 8571amylase, technique, *Triticum* 10324 $\alpha$ -amylase*Glycine* 10147*Hordeum* 8121, 9612*Secale* 1911, 4935, 7992*Secale* × *Triticum*, tritcale 6989*Triticum* 148, 1076, 1754, 1872, 3927,

3951, 4858, 5914, 6911, 6965, 7889,

7934

 $\alpha$ -amylase inhibitor*Echinochloa* 6112*Eleusine* 6112*Panicum* 6112*Paspalum* 6112*Pennisetum* 6112*Setaria* 6112*Sorghum* 6112 $\alpha$ -amylase, technique

cereals 10246

*Sorghum* 10246*Triticum* 1079, 10321 $\beta$ -amylase*Agropyron* 8950*Agropyron* × *Triticum* 8950*Glycine* 5690, 5691, 6760, 6769*Hordeum* 8121*Hordeum* × *Triticum* 10531*Oryza* 4209*Secale* 4942*Triticum* 8950

amylpectin

*Hordeum* 1166, 5044*Sorghum* 3152

amylase

cereals 2155

*Hordeum* 1166, 5026, 5044, 7107,

10547

*Lens* 2754*Oryza* 371, 376, 1226, 2150, 2153,

2155, 4192, 6159, 6161, 6162, 6163,

6165, 7200, 7203, 8182, 8187, 8674,

10611

*Pisum* 10170*Sorghum* 3151, 3152*Zea*, maize 8037, 10436anabasine, *Nicotiana* 1016

anthocyanins

*Arachis* 2440*Brassica* 1533*Brassica*, oil crops 633*Camellia* 10217*Capsicum* 8377*Carthamus* 4477*Citrus* 6517*Daucus* 5546*Gossypium* 7377, 10717*Hibiscus* 7405*Lolium* 8237*Lycopersicon* 11044*Medicago* 9749*Oryza* 356, 2121, 3176, 9691*Pisum* 5706, 10179*Prunus*, cherry 5441*Prunus*, peach 3562*Ribes*, black currant 2524



Chemicals, as plant constituents *contd.*anthocyanins *contd.*

*Zea*, maize 1957, 3034, 3053, 4039,  
4961, 7035, 8031, 8800

*Zizania* 10623

anthranilic acid, *Zea*, maize 9571

arabinose, *Arachis* 7519

arachidic acid

*Lupinus* 471

*Mangifera* 9976

arginine

*Hordeum* 1163

*Oryza* 377, 5134, 6151

*Pisum* 982

*Solanum*, potato 1309

*Triticum* 1102, 6955

*Vicia*, broad bean 11083

*Zea*, maize 1126, 6045

ascorbate oxidase, *Citrus*, lemon 10217

ascorbic acid

*Brassica*, Brussels sprouts 2610

*Brassica*, cabbage 2610

*Brassica*, cauliflower 8516

*Brassica*, red cabbage 2610

*Brassica*, turnip 8273

*Capsicum* 654, 656, 2452, 7521

*Celosia* 5637

*Chaenomeles* 2485

*Citrus*, review 3566

*Citrus*, grapefruit 3566, 9963

*Citrus*, grapefruit  $\times$  *Citrus*, mandarin  
9964

*Citrus*, grapefruit  $\times$  *Citrus*, orange  
9127, 9964

*Citrus*, lemon 3566, 9963, 10217

*Citrus*, lime 3566

*Citrus*, mandarin 3566

*Citrus*, mandarin  $\times$  *Citrus*, pomelo  
9964

*Citrus*, orange 3566

*Citrus*, orange  $\times$  *Citrus*, pomelo 9964

*Citrus*, pomelo 9963

*Cucumis*, melon 5604

*Cydonia* 9113

*Cynodon* 10629

*Fagopyrum* 4232

*Hippophae* 8436

*Ipomoea* 4362

*Larix* 5542

*Lycopersicon* 894, 1521, 2639, 3717,  
6651, 8541, 9282, 11054, 11055

*Momordica* 10074

*Morus* 3580

*Prunus*, plum 8399

*Psidium* 4541, 5458

*Ribes*, black currant 3500, 7588

*Rosa* 651, 5397, 9917

*Rubus* 6529

*Rubus*, blackberry  $\times$  *Rubus*, raspberry  
6529

*Rubus*, raspberry 4544

*Solanum*, potato 3316, 8291, 8292,  
8976

*Sorghum* 336, 5074

*Trigonella* 6278

vegetable crops 826

*Vitis* 10009

ascorbic acid, technique

*Lycopersicon* 7710

*Ribes*, black currant 7587

ash

*Glycine* 11163

*Phalaris* 4268

*Prunus*, plum 707, 8399

*Psophocarpus* 6801

*Trigonella* 6278

asparagine

*Oryza* 6151

*Triticum* 6955

aspartate aminotransferase

*Aegilops* 9495

*Glycine* - *Nicotiana* 1373

*Pinus* 10954

*Pisum* 5749

aspartate transaminase

*Lupinus* 5236

*Nicotiana* 8340, 8343

aspartic acid, *Morus* 8418

auxins

*Citrus*, orange 4537

*Nicotiana* 6412

*Olea* 9896

*Triticum* 4864

Chemicals, as plant constituents *contd.*

avenin, *Avena* 7987

azide metabolite, *Hordeum* 5030

1,4-benzoxazin-3-ones, *Zea*, maize 9593

bergapten, *Heracleum* 9767

betacyanins

*Beta*, beetroot 8501

*Chenopodium* 6200

betaxanthin, *Beta*, beetroot 8501

betulin, *Betula* 10949

boron

*Arachis* 9900

*Malus* 3524

cadmium, *Brassica*, rape 7486

caffeic acid, *Pinus* 4590

caffeine, *Coffea* 627

caffeoylquinic acid esters, *Ipomoea* 1324

calcium

*Amaranthus* 8568

*Arachis* 9900

*Brassica*, cabbage 9240

*Dioscorea* 2360

*Festuca* 6225

*Hevea* 10848

*Hordeum* 4832

*Macrotyloma* 2762, 2763

*Malus* 3497, 3524, 6487

*Manihot* 3413

*Medicago* 1271, 4285, 5220

*Morus* 4539

*Phleum* 3216

*Pinus* 812

*Psophocarpus* 6801

*Setaria* 2063

*Triticum* 1081, 4832

*Vitis* 3616, 10011

*Zea*, maize 1986, 4973, 8044

calcium oxalate

*Allium*, minor species 5559

*Allium*, onion 5559

*Salix* 5529

callose, *Saccharum* 7414

campesterol

*Averrhoa* 5487

*Urginea* 9096

camphene, *Pinus* 1512

cannabinoids, technique, *Cannabis* 9830

cannabinol, *Cannabis* 9829

capsaicin, *Capsicum* 3485

capsidiol, *Capsicum* 9909

carbohydrates

*Allium*, garlic 9237

*Allium*, onion 2600

*Artocarpus* 8435

cereals 1715

*Daucus* 9226

*Eleusine* 2075

*Fagopyrum* 8932

*Festuca* 2197, 5194, 6204, 7230, 8243

*Glycine* 11163

*Gossypium* 2308

grasses 6204

*Hordeum* 2805

*Juglans* 10017

*Lolium* 5179, 5183, 5184, 7230, 7251

*Macrotyloma* 2762

*Manihot* 580, 3408

*Morus* 6520

*Oryza* 2157, 2163

*Phaseolus* 7747

*Phleum* 6204, 7230

*Prunus*, almond 10017

*Sesamum* 9064

*Sorghum* 8137

*Trifolium*, white clover 7230

*Triticum* 1827

*Vitis* 5497

*Zea*, maize 4024, 4041, 4052

carbohydrates, technique

grasses 4241, 5785, 8227

*Lolium* 4241

carbon

forest trees 5514

*Triticum* 10335

carboxypeptidase, *Trifolium*, red clover

8692

cardiolipin, *Glycine* 11141

$\Delta^3$ -carene, *Pinus* 9197

carnosine, *Citrus*, orange 1460

carotene

*Capsicum* 2452, 9089

*Cucurbita* 877

*Cydonia* 7535

Chemicals, as plant constituents *contd.*

carotene *contd.*

*Daucus* 8502, 9227, 10983

*Glycine* 7769

*Hippophae* 10927

*Lycopersicon*  $\times$  *Solanum* 902, 8545

*Malus* 7535

*Medicago* 450

*Onobrychis* 1288

*Prunus*, apricot 7535

*Prunus*, cherry 7535

*Prunus*, peach 7535

*Prunus*, plum 7535

*Zea*, maize 4992

$\alpha$ -carotene, *Daucus* 836, 6602, 6603

$\beta$ -carotene

*Daucus* 836, 6602, 6603, 9226

*Lycopersicon* 6658

*Lycopersicon*  $\times$  *Solanum* 8545

*Manihot* 5335

*Sorghum* 6120

$\gamma$ -carotene

*Daucus* 6602, 6603

*Lycopersicon* 6658

$\zeta$ -carotene, *Daucus* 6602, 6603

carotenoids

*Aegilops* 143

*Daucus* 837

*Hippophae* 10001, 10927

*Lycopersicon* 3707, 9269

*Nicotiana* 598

*Olea* 9897

*Pinus* 5535

*Prunus*, peach 3562

*Solanum*, potato 495

*Sorghum* 7128

*Triticum* 143, 174, 7953

*Zea*, maize 3080, 4045, 4981, 4992,  
6011, 7046, 7056, 8031

carvone, *Carum* 8654

catalase

*Euchlaena* 1129

*Euchlaena*  $\times$  *Zea*, maize 1129

*Hordeum* 7096

*Oryza* 380

*Triticum* 2909, 3921, 5914

*Zea*, maize 1129, 1132, 1946, 1973,  
1989, 3042, 4037, 4977, 4982, 4983,  
7038, 8035

catechins, *Camellia* 2394, 10217

cellulase, *Cryptodiaportha* 3628

cellulose

*Citrus*, lemon 720, 10219

*Citrus*, mandarin 720

*Citrus*, orange 720

*Corylus* 1495

*Lolium* 7251

*Melilotus* 8267

*Trigonella* 6278

*Zea*, maize 5004

chacatriose, *Solanum*, potato 7359



Chemicals, as plant constituents *contd.*

- chlorophyll *contd.*  
*Cynodon* 5174  
*Dactylis* 8939  
*Fagopyrum* 4229, 4232  
*Festuca* 10638, 10639, 10640  
*Glycine* 2723, 2735, 4733, 4739, 5689, 5694, 5697, 7769, 7847, 8600, 8602, 9314  
*Gossypium* 2297, 9808  
*Hibiscus* 7403, 8318  
*Hordeum* 297, 2022, 2023, 2032, 2035, 2044, 3107, 3110, 5029, 5030, 6084, 6093, 7088, 7092, 7093, 8084, 8096, 8840, 9601, 10237, 10534, 10535, 10536, 10537  
*Lycopersicon* 2647, 2652, 3707, 3723, 5629, 8541, 10237  
*Macroptilium* 3724  
*Malus* 4514  
*Medicago* 5215, 7817  
*Nicotiana* 597, 598, 607, 1368, 1369, 3429, 3430, 5342, 5344, 5345, 5346, 5350, 7445, 7817, 8334, 8338, 8339, 8343  
*Oryza* 359, 1211, 2141, 2142, 4198, 4203, 5124, 5761, 6137, 6149, 7187, 7208, 9673, 9678, 10598, 10607  
*Phaseolus* 1571, 2693, 9292, 11098  
*Pinus* 5535  
*Pisum* 976, 5702, 5704, 10165  
*Poa* 5166  
*Prunus*, cherry 2494, 6507  
*Prunus*, peach 3562  
*Raphanus* 1531, 10971  
*Ribes*, black currant 2524  
*Ricinus* 2407, 9062, 10815  
*Saccharum* 10752  
*Secale* × *Triticum*, triticales 3989  
*Solanum*, potato 5252, 10237  
*Sorghum* 2089, 4138, 4174, 5074, 7128  
*Theobroma* 29  
*Triticum* 143, 174, 1802, 4864, 7895, 7896, 7953, 10245, 10329  
*Vaccinium* 9985  
*Vigna*, cowpea 3724  
*Vigna*, minor species 3744, 4706, 10120, 10122  
*Vitis* 8440  
*Zea*, maize 1952, 1985, 3041, 3046, 3049, 4016, 4033, 4045, 4992, 6011, 7034, 7046, 7847, 8019, 9535, 9560, 10245, 10477  
cholecalciferol derivatives, *Trisetum* 7272  
cholesterol, *Nicotiana* 598  
chromatin  
*Beta*, sugar beet 6381  
*Genisteae* 8250  
*Nicotiana* 10783  
*Pennisetum* 10561  
*Phaseoleae* 8250  
*Trifolieae* 8250  
*Viciae* 8250  
chromium, *Sorghum* 3152  
chymotrypsin, *Trifolium*, red clover 8692  
chymotrypsin inhibitor, *Hordeum* 10546  
chymotryptic peptides, *Lycopersicon* - *Solanum*, potato 11042  
cinnamyl alcohol : NADPH oxidoreductase, *Sorghum* 4150  
citric acid  
*Citrus* 5455  
*Citrus*, grapefruit × *Citrus*, mandarin 5455  
*Citrus*, mandarin 2509  
*Citrus*, orange 5455  
*Citrus*, pomelo 5455  
*Hibiscus* 7404  
*Lycopersicon* 3716  
citronellol, *Pelargonium* 652  
citrulline, *Capsicum* 8380  
codeine, *Papaver* 9877, 9878  
commersonine, *Solanum*, potato 5255, 7360  
convicine, *Vicia*, broad bean 6692, 6693  
copper  
*Arachis* 9900  
*Brassica*, cabbage 9240, 10982  
*Brassica*, rape 7486  
*Lycopersicon* 2652  
*Malus* 3524

Chemicals, as plant constituents *contd.*

- copper *contd.*  
*Medicago* 4285  
*Sorghum* 3152  
*Zea*, maize 8044  
*o*-coumaric acid, *Triticum* 8745  
coumestan, *Phaseolus* 4690  
coumestrol, *Glycine* 1593  
*m*-cresol, *Nicotiana* 8346  
*o*-cresol, *Nicotiana* 8346  
*p*-cresol, *Nicotiana* 8346  
cresols, *Nicotiana* 608, 609  
cucurbitacins  
*Cucumis*, cucumber 7694, 7695  
*Cucurbita* 11020  
cuskhygrine, *Atropa* 9919  
cuzcohygrine, *Atropa* 9920  
cyanidin, *Raphanus* 3654  
cyanidin 3-glucoside, *Prunus*, plum 8398  
cyanidin 3-glucoside, *Rubus*, raspberry 5467  
cyanidin 3-glucosylrutinoside, *Rubus*, raspberry 5467  
cyanidin 3-rutinoside, *Prunus*, plum 8398  
cyanidin 3-rutinoside, *Rubus*, raspberry 5467  
cyanidin 3-sophoroside, *Rubus*, raspberry 5467  
cyanogenetic compounds  
grasses 7228  
*Lotus* 2246, 4311, 4312, 5238, 7273  
*Manihot* 580, 1634, 5335, 5337, 6394, 10770  
*Sorghum* 332, 1187, 4172, 4174, 6126, 7143, 7234, 8883  
*Trifolium*, white clover 1284, 2239, 7273, 7297  
cystathionine, *Medicago* 10663  
cysteine  
*Glycine* 11157  
*Hordeum* 1163  
*Medicago* 10663  
*Pisum* 5703  
cystine  
*Glycine* 1592  
*Hordeum* 1163  
*Oryza* 377  
*Pisum* 982  
*Secale* × *Triticum*, triticales 5952  
*Vicia*, broad bean 11083, 11084  
cytochrome c reductase  
*Hordeum* 2041, 10529, 10532  
*Nicotiana* 10779  
cytochrome oxidase  
*Lycopersicon* 9273  
*Oryza* 5126  
*Zea*, maize 6042, 7052  
cytokinins  
*Cannabis* 10734  
*Hordeum* 1709  
*Lycopersicon* 11053  
*Nicotiana* 6412  
dehydrocommersonine, *Solanum*, potato 7359, 7360  
dehydrogenases, *Morus* 6520  
delphinidin glycosides, *Hibiscus* 7405  
demissine, *Solanum*, potato 7333  
deoxyribonuclease  
*Hordeum* 8841  
*Triticum* 7932, 7933  
*Zea*, maize 10462  
digoxin, *Digitalis* 9912, 9914  
dihydrokaempferol 7-O-glucoside, *Pinus* 10034  
β-diketones, cereals 7872  
DIMBOA, *Zea*, maize 7068, 9593, 9594  
dimethyl sulphide, *Vitis* 7616  
3,7-dimethyl-1,7-octadiene-3,6-diol, *Vitis* 10936  
diosgenin, *Dioscorea* 6396, 9031  
*o*-diphenol oxidase, *Prunus*, peach 712  
disaccharides  
*Rubus* 6529  
*Rubus*, blackberry × *Rubus*, raspberry 6529  
docosanol, *Nicotiana* 2380  
dopa, *Vicia*, broad bean 2684  
duvatriediols, *Nicotiana* 6419  
endopeptidase  
*Hordeum* 5851  
*Hordeum* × *Triticum* 5851  
*Zea*, maize 1970, 3032, 4977

Chemicals, as plant constituents *contd.*

- enzymes 1616  
*Aegilops* 3955  
*Amaranthus* 6199  
*Avena* 5807  
*Brassica* 3672  
*Brassica*, Brussels sprouts 2608  
*Brassica*, cabbage 2608  
*Brassica*, kale 2608  
*Brassica* × *Raphanus* 3667  
*Brassica*, sprouting broccoli 2608  
*Capsicum* 657  
*Euchlaena* 6052  
*Gossypium* 2303  
*Hordeum* 2805, 3097, 5807, 8118, 8841  
*Lolium* 5178  
*Lycopersicon* 5633  
*Pinus* 2577, 5532, 9192, 10036  
*Pseudotsuga* 9207  
*Secale* 4940, 7019  
*Secale* × *Triticum*, triticales 7003  
*Sorghum* 336  
*Triticum* 1092, 3955  
*Vitis* 5503  
*Zea*, maize 5981, 5991, 6052, 7856, 8812, 9533  
enzymes, technique, review 5734  
ergocornine, *Claviceps* 993  
ergocryptine, *Claviceps* 993  
ergosine, *Claviceps* 993  
erucic acid  
*Brassica*, oil crops 3459, 9056  
*Brassica*, oil crops × *Brassica*, rape 3463  
*Brassica*, rape 860, 1404, 1406, 3464, 3465, 4458, 4464, 6433, 7485, 7826, 8360, 9056  
erucic acid, technique, *Brassica*, rape 5786  
esterase  
*Aegilops* 185, 6964, 7975  
*Amaranthus* 6198  
*Anthoxanthum* 3234  
*Arabidopsis* - *Brassica* 3671  
*Avena* 2856, 7989  
*Brassica* 10995  
*Coffea* 8353  
*Cucumis*, cucumber 883  
*Digitalis* 6231  
*Euchlaena* 1129  
*Euchlaena* × *Zea*, maize 1129  
*Hordeum* 2856, 5851, 6089, 8076, 9605  
*Hordeum* × *Secale* × *Triticum* 1768, 1769  
*Hordeum* × *Triticum* 5851  
*Ipomoea* 3337  
*Lolium* 424  
*Lycopersicon* 898  
*Medicago* 1266  
*Morus* 6520  
*Nicotiana* 3432, 8340, 8343  
*Olea* 9897  
*Oryza* 366, 367, 1217  
*Oryza* × *Sorghum* 4193  
*Phoenix* 3584  
*Picea* 815, 9204  
*Pinus* 7641, 9190  
*Poa* 2187  
*Secale* 8001  
*Triticum* 185, 1086, 6964  
*Vicia* 6691  
*Vicia*, broad bean 8571  
*Vicia*, vetch 8571  
*Zea*, maize 1129, 2856, 5990  
esters, *Vitis* 2539, 2540  
estrogens  
*Medicago* 1259  
*Trifolium*, red clover 1259  
ethanolamine, *Citrus*, orange 1460  
ethylene, *Beta*, sugar beet 4418  
euchromatin, *Poa* 10627  
fatty acids  
*Arachis* 8374  
*Averrhoa* 5487  
*Brassica* 859, 3661  
*Brassica*, oil crops 65, 3459  
*Brassica*, rape 860, 6431  
crop plants 65  
*Elaeis* 9074, 9894  
*Glycine* 1597, 2809, 10147  
*Gossypium* 65, 9822



Chemicals, as plant constituents *contd.*

- fatty acids *contd.*  
*Helianthus*, sunflower 642, 9890  
*Linum* 65  
*Manihot* 3408  
nuts 65  
oil plants 65  
*Olea* 7502  
*Oryza* 8170  
*Phaseolus* 10106  
*Pinus* 4590  
*Psophocarpus* 7799  
*Raphanus* 859  
*Sinapis* 859  
*Sorghum* 3152  
stone fruits 65  
*Zea*, maize 272, 6054, 7064  
flavanols, *Triticum* 148  
flavanone synthase, *Zea*, maize 4953  
flavin adenine dinucleotide, *Nicotiana* 10779  
flavonols, *Lotus* 474, 475  
flavone *O*-glucosides, *Sorbus* 668  
flavonoids  
*Citrus*, grápefruit 9963  
*Citrus*, lemon 9963  
*Citrus*, pomelo 9963  
*Coffea* 4449  
*Cynodon* 10629  
*Eucalyptus* 3631  
*Hordeum* 6084  
*Larix* 6594  
*Solanum*, potato 1315  
*Vicia*, broad bean 2674  
flavonol glucosides  
*Cucumis*, melon 876  
*Prunus*, apricot 6497  
*Prunus*, cherry 6497  
*Prunus*, peach 6497  
*Prunus*, plum 6497  
formononetin  
*Trifolium*, red clover 3279, 6261, 7295  
*Trifolium*, subterranean clover 4299  
fructans, *Allium*, onion 2600  
fructosan  
*Dactylis* 4248  
*Lolium* 5184  
fructose  
*Carica* 9143  
*Cicer* 10183  
*Citrullus* 6638  
*Daucus* 7658  
*Lycopersicon* 3716  
*Solanum*, potato 7332  
*Vitis* 7615  
*Zea*, maize 8821  
fructose 1,6-diphosphate aldolase, *Pisum* 5749  
fructose, technique, *Solanum*, potato 494  
furanones, *Vitis* 4570  
2-furfural, *Nicotiana* 9861  
GA  
*Hordeum* 1708  
*Triticum* 1709, 1756, 4864  
*Zea*, maize 7057  
galactose, *Triticum* 1095  
gentiisoylglucose  
*Citrus* 2505  
*Citrus*, grápefruit  $\times$  *Citrus*, mandarin 2505  
*Citrus*, lemon 2505  
*Citrus*, mandarin 2505  
*Citrus*, orange 2505  
*Citrus*  $\times$  *Poncirus* 2505  
*Poncirus* 2505  
geraniol, *Pelargonium* 652  
gliadin  
*Aegilops* 7943  
*Aegilops*  $\times$  *Triticum* 3906  
cereals 1047  
*Secale* 7019, 8000, 8011  
*Secale*  $\times$  *Triticum*, triticales 222  
*Triticum* 133, 181, 1091, 1764, 1800, 2945, 3937, 3941, 4825, 6925, 6959, 6961, 7903, 7924, 7926, 7943, 7946, 8746, 9446, 10323, 10344  
*Vigna*, cowpea 7754  
gliadin, technique, *Triticum* 1742, 10322, 10340  
globulin  
cereals 1716  
*Euchlaena* 6052  
*Hordeum* 307, 317, 1163, 5043, 6096

Chemicals, as plant constituents *contd.*

- globulin *contd.*  
*Oryza* 373  
*Phaseolus* 946, 11100, 11101  
*Pisum* 5705  
*Secale* 8011  
*Vigna*, cowpea 7754  
*Voandzeia* 6277  
*Zea*, maize 1032, 1992, 6048, 6052, 7062, 8822, 9579, 10480  
 $\beta$ -glucanase, *Hordeum* 8121  
 $\beta$ -glucan, *Hordeum* 3121, 3122, 7105, 7832, 8120  
 $\beta$ -glucan, technique, *Hordeum* 7105  
glucose  
*Brassica*, cabbage 4618  
*Carica* 9143  
*Cicer* 10183  
*Citrullus* 6638  
*Daucus* 7658  
*Lycopersicon* 3716  
*Pisum* 977  
*Solanum*, potato 7332  
*Vitis* 7615  
*Zea*, maize 8821  
glucose-6-phosphate, *Hordeum* 10543  
glucose-6-phosphate dehydrogenase  
*Hordeum*  $\times$  *Triticum* 10531  
*Triticum* 7939  
*Zea*, maize 5990  
glucose-6-phosphate ketoisomerase, *Zea*, maize 1996  
glucose, technique, *Solanum*, potato 494  
glucosidase, *Nicotiana* 3439  
 $\beta$ -glucosidase  
*Lotus* 2246  
*Melilotus* 8267  
*Solanum*, potato 2277  
*Stemphylium* 2246  
glucosides, *Vicia*, broad bean 6692  
glucosinolates  
*Brassica* 3661, 10054  
*Brassica*, cabbage 5582, 5583  
*Brassica*, rape 3464, 3465, 3668, 4464, 4465, 5372, 6431, 6433, 7485, 7826, 8360  
review 861  
*Brassica*, red cabbage 5582, 5583  
*Brassica*, swede 1534, 4321, 5246, 6281  
*Brassica*, turnip 1534, 5246, 6281  
*Crambe* 10054  
*Cruciferae* 10054  
*Eruca* 10054  
*Raphanus* 3653  
glucosinolates, technique  
*Brassica*, rape 5786, 6435  
oil plants 5785  
glutamate dehydrogenase  
*Pinus* 6585  
*Sorghum* 1036  
*Zea*, maize 1036, 1954, 8804  
glutamate oxaloacetate transaminase  
*Amaranthus* 6198  
*Anthoxanthum* 3234  
*Brassica* 3672  
*Dactylis* 418  
*Hordeum* 5851  
*Hordeum*  $\times$  *Triticum* 5851  
*Lolium* 9731  
*Lycopersicon* 898  
*Lycopersicon*  $\times$  *Solanum* 898  
*Persea* 1470  
*Phoenix* 3584  
*Picea* 9204  
*Pinus* 5532, 6585, 7641  
*Sorghum* 1036  
*Triticum* 1816  
*Vicia* 6691  
*Vicia*, broad bean 8571  
*Vicia*, vetch 8571  
*Zea*, maize 1036, 4977, 8804  
glutamate synthase, *Zea*, maize 4053  
glutamic acid  
*Hordeum* 1038, 1163  
*Secale*  $\times$  *Triticum*, triticales 5952  
*Solanum*, potato 1309  
*Zea*, maize 1126, 8792, 8822  
glutamic acid decarboxylase, *Glycine* 10147  
glutamine synthetase  
*Vicia*, broad bean 3729  
*Zea*, maize 4053

Chemicals, as plant constituents *contd.*

- $\gamma$ -glutamyl-S-methylcysteine, *Vigna*, minor species 4708  
 $\gamma$ -glutamylmethionine, *Vigna*, minor species 4708  
glutathione, *Medicago* 10663  
glutelin  
cereals 1716  
*Hordeum* 5043  
*Sorghum* 5079  
*Vigna*, cowpea 7754  
*Zea*, maize 1032, 1992, 4057, 6048, 8029, 8822, 10480  
gluten  
*Aegilops* 7943  
*Secale*  $\times$  *Triticum*, triticales 212, 2948  
*Triticum* 133, 150, 163, 1092, 1093, 1816, 2948, 3947, 5841, 5897, 6917, 6925, 6960, 7881, 7929, 7943, 7944, 7945, 8740, 8749, 8751, 10302, 10344, 10353  
gluten, technique, *Triticum* 10352  
glutenin  
*Aegilops* 7943  
*Aegilops*  $\times$  *Triticum* 9389  
*Hordeum* 309  
*Secale* 8011  
*Triticum* 90, 181, 4875, 4876, 5901, 6960, 7943  
glyceollin, *Glycine* 973, 1596, 7775, 8612, 8613  
glycerides, *Elaeis* 9894  
glycerol, *Nicotiana* 9861  
glycine  
*Morus* 8418  
*Nicotiana* 8345  
glycine decarboxylase, *Nicotiana* 8345  
glycinebetaine  
*Agrostis* 6214  
crop plants 5789  
glycinin, *Glycine* 7771  
glycoalkaloids, *Solanum*, potato 517, 3332, 7359, 7360  
glycoalkaloids, technique, *Solanum*, potato 2266, 4343  
glycolate oxidase, *Triticum* 146  
glycoprotein  
*Brassica* 2609, 6616  
*Fulvia* 9281  
*Phytophthora* 1596  
*Raphanus* 6616  
glycoprotein, technique, *Brassica* 2609  
goitrin  
*Brassica*, swede 5246, 6281  
*Brassica*, turnip 5246, 6281  
gossypol, *Gossypium* 3372, 5308, 5309, 9823, 10714, 10727  
gramine  
*Lupinus* 7306  
*Phalaris* 7234, 7266  
growth regulators  
cereals, review 1709  
*Lycopersicon* 3711  
*Rhizobium* 3767  
*Triticum* 171  
gum, *Cyamopsis* 1294, 7309  
hemagglutinins  
*Glycine* 6676  
*Lupinus* 6676  
*Pisum* 6676  
*Vicia*, broad bean 2678, 6676, 11085  
*Vigna*, cowpea 6676  
hemicellulose  
*Corylus* 1495  
*Festuca* 8947  
*Hordeum* 3122  
*Triticum* 1827  
heptanol, *Apium*  $\times$  *Petroselinum* 10065, 11001  
heptulose, *Persea* 5466  
heterochromatin 3819, 3822, 9393, 9394  
*Allium*, onion 10049  
*Hordeum* 2037  
*Hordeum*  $\times$  *Secale* 4087  
*Lathyrus* 1293  
*Lolium* 8239  
*Lycopersicon* 2259  
*Poa* 10627  
*Secale* 2804  
*Secale*  $\times$  *Triticum*, triticales 1108, 7978, 9383  
*Solanum*, potato 2259  
*Triticum* 137



# Chemicals, as plant constituents *contd.* heterochromatin *contd.*

- Vicia*, broad bean 10097  
*Zea*, maize 3040, 9551, 10453  
 hexokinase, *Hordeum* 10543  
 hexoses, *Cynodon* 421  
 hibiscic acid, *Hibiscus* 7404  
 histidine  
   *Oryza* 5134  
   *Pisum* 9327  
   *Triticum* 1102  
 histone  
   *Hordeum* 6086  
   *Oryza* 5126  
   *Secale* 1910  
   *Sesamum* 9064  
   *Zea*, maize 4990  
 hordein, *Hordeum* 309, 317, 1035, 1163, 2805, 4084, 4086, 4825, 5026, 5043, 5045, 7099, 8077, 8123, 8848  
 hordein, technique, *Hordeum* 6088  
 hordenine, *Phalaris* 7234  
 hydrocarbons, *Nicotiana* 2380  
 hydrogenase, *Rhizobium* 3236  
 hydroxamic acid, *Triticum* 6987  
 o-hydroxycinnamic acid, *Melilotus* 8267  
 5-hydroxymethylfurfural, *Nicotiana* 9861  
 hygrine, *Atropa* 9919, 9920  
 IAA  
   *Hordeum* 1708  
   *Prunus*, cherry 2494  
   *Sorghum* 2087, 7156  
   *Zea*, maize 5003, 6050  
 IAA decarboxylase, *Solanum*, potato 2276  
 IAA oxidase  
   *Helianthus*, sunflower 6448  
   *Hevea* 3493  
   *Hordeum* 1708  
   *Lycopersicon* 7722  
   *Sorghum* 336  
 incanole, *Mentha* 11195  
 indophenol oxidase  
   *Vicia* 6691  
   *Vicia*, broad bean 8571  
   *Vicia*, vetch 8571  
 iron  
   *Amaranthus* 8568  
   *Lycopersicon* 3717  
   *Macrotyloma* 2762  
   *Malus* 3524  
   *Medicago* 4285  
   *Momordica* 10074  
   *Oryza* 7208  
   *Pennisetum* 6118  
   *Poa* 5166  
   *Setaria* 2063  
   *Sorghum* 3152, 9649  
   *Triticum* 1081, 1090  
   *Zea*, maize 7064, 8044  
 isochlorogenic acid, *Ipomoea* 1325  
 isocitrate dehydrogenase  
   *Coffea* 8353  
   *Pinus* 6585  
   *Zea*, maize 5990, 8804, 10463  
 isoleucine  
   *Morus* 8418  
   *Oryza* 375  
   *Pisum* 9327  
   *Sorghum* 1190  
   *Triticum* 6955  
   *Zea*, maize 6045, 8792  
 isomenthone, *Mentha* 4768  
 isothebaine, *Papaver* 9879  
 kaempferol 3-galactoside  
   *Prunus*, apricot 6497  
   *Prunus*, cherry 6497  
   *Prunus*, peach 6497  
   *Prunus*, plum 6497  
 kaempferol 3-glucoside  
   *Prunus*, apricot 6497  
   *Prunus*, cherry 6497  
   *Prunus*, peach 6497  
   *Prunus*, plum 6497  
 lanatoside C, *Digitalis* 9913, 9915, 9916, 9918, 10846  
 latex  
   *Hevea* 10848  
   *Parthenium* 8383  
 lead, *Brassica*, rape 7486  
 lectins  
   *Glycine* 11136, 11142

# Chemicals, as plant constituents *contd.* lectins *contd.*

- Lycopersicon* 9278  
*Phaseolus* 946, 4688  
*Solanum*, potato 1321, 6332, 10695  
 leghemoglobin  
   *Glycine* 2730, 2731, 7763, 7770  
   *Medicago* 444  
 legumin  
   *Lathyrus* 8951  
   *Lens* 8951  
   *Lupinus* 8951  
   *Pisum* 1601, 2802, 3839, 5703, 5705, 6781  
   *Vicia*, broad bean 8951, 11084  
 leptine, *Solanum*, potato 7359  
 leucine  
   *Pisum* 9327  
   *Sorghum* 337, 1190  
   *Triticum* 10338  
   *Zea*, maize 1988, 3047, 6045, 8792, 8822  
 leucine aminopeptidase  
   *Amaranthus* 6198  
   *Coffea* 8353  
   *Fagus* 6579  
   *Fragaria* 6537  
   *Medicago* 2218, 2219, 8254  
   *Persea* 1470  
   *Picea* 815, 9204  
   *Pinus* 6585, 6587, 10954  
   *Triticum* 1086  
 lignin  
   *Brassica*, kale 6869  
   crop plants 1693  
   *Dactylis* 6869  
   *Festuca* 7229  
   *Medicago* 6869  
   *Melilotus* 8267  
   *Phleum* 7229  
   *Prunus*, plum 6504  
   *Solanum*, potato 6321  
   *Sorghum* 4150, 8136, 8880  
   *Triticum* 1827  
   *Zea*, maize 2010, 3059, 3060, 5004, 7025  
 lignin, technique, *Dactylis* 7239  
 limonene  
   *Apium* × *Petroselinum* 10065, 11001  
   *Daucus* 5549  
   *Pinus* 9194  
 linamarase  
   *Lotus* 2246  
   *Stemphylium* 2246  
   *Trifolium*, white clover 2239, 7297, 7298  
 linamarin, *Trifolium*, white clover 7298  
 linoleic acid  
   *Arachis* 8374  
   *Brassica* 2607  
   *Brassica*, rape 3462, 3668, 4456  
   *Glycine* 4730, 7773  
   *Helianthus*, sunflower 642, 9890, 9891  
   *Lupinus* 471  
   *Mangifera* 9976  
   *Triticum* 112  
   *Zea*, maize 273, 1947  
 linolenic acid  
   *Brassica*, oil crops × *Brassica*, rape 3463  
   *Brassica*, rape 3462, 4456, 4464  
   *Glycine* 1597, 4730  
   *Lupinus* 471  
   *Mangifera* 9976  
   *Triticum* 112  
 lipids  
   *Artocarpus* 8435  
   *Avena* 2862  
   *Betula* 5524  
   *Brassica* 2607  
   *Brassica*, rape 6431  
   *Helianthus*, sunflower 9890  
   *Olea* 7502  
   *Paspalum* 2198  
   *Secale* × *Triticum* 10297  
   *Solanum*, potato 506  
   *Triticum* 1095  
   *Zea*, maize 2862, 4980  
 lipids, technique, oil plants 5785  
 lipoygenase, *Camellia* 7479  
 lotaustralin, *Trifolium*, white clover 7298  
 lubimin, *Solanum*, potato 5261  
 lutein, *Glycine* 7769

# Chemicals, as plant constituents *contd.*

- lycopene  
   *Daucus* 836, 6603  
   *Lycopersicon* 6658  
 lysine  
   *Avena* 8701  
   *Cajanus* 1018  
   *Euchlaena* × *Zea*, maize 7041  
   *Glycine* 969, 6771, 6871, 11157  
   *Hordeum* 89, 90, 307, 309, 1025, 1029, 1031, 1035, 1036, 1038, 1166, 1708, 1718, 2033, 2040, 2049, 2050, 2805, 2852, 3088, 3112, 3118, 3121, 4099, 5041, 5042, 5043, 5046, 6095, 6096, 7102, 7106, 8079, 8118, 8701, 8702, 8863, 9426, 9611, 10241, 10517, 10543, 10546  
   *Oryza* 375, 1018, 1227, 5134, 6151, 6156  
   *Pennisetum* 2793, 4112  
   *Pisum* 5704, 9327  
   *Secale* × *Triticum*, triticate 217, 223, 4879, 5952, 7985, 9502  
   *Sorghum* 1018, 1029, 1036, 1190, 2794, 4152, 5078, 7138, 7141, 7148, 8130, 8137, 9644, 9648  
   *Triticum* 223, 1025, 1090, 1102, 1718, 2954, 3942, 4848, 4866, 4879, 4880, 4881, 6871, 6908, 6955, 7904, 8702, 8710, 9426, 9468, 10338, 10341, 10345  
   *Vicia*, broad bean 11083  
   *Vigna*, cowpea 1018  
*Zea*, maize 260, 266, 267, 268, 270, 271, 274, 275, 1018, 1029, 1030, 1032, 1036, 1037, 1126, 1133, 1919, 1944, 1981, 1992, 1993, 1994, 1996, 2010, 3033, 3056, 3058, 4009, 4024, 4046, 4053, 4055, 4056, 4057, 4058, 4063, 4945, 4995, 4997, 4998, 5014, 5994, 5997, 6006, 6023, 6045, 6046, 6048, 6049, 6050, 6051, 6871, 7025, 7026, 7059, 7060, 7061, 7062, 7063, 7064, 8045, 8702, 8792, 8819, 8820, 8821, 8822, 9579, 9582, 10425, 10437, 10480, 10484, 10485, 10486, 10504  
*Zea*, sweet corn 6051  
 lysine, technique  
   *Hordeum* 308, 1023, 1039, 3119, 3885, 5040, 5047, 6097, 8700, 8859  
   *Oryza* 1039  
   *Sorghum* 1039, 2092  
   *Triticum* 1039, 3885, 8700  
   *Zea*, maize 1039, 4054, 4996, 8036, 10481  
 maackianin, *Pisum* 10167  
 magnesium  
   *Amaranthus* 8568  
   *Arachis* 9900  
   *Dioscorea* 2360  
   *Festuca* 6225  
   *Hevea* 10848  
   *Lycopersicon* 2652  
   *Malus* 3497, 6487  
   *Manihot* 3413  
   *Medicago* 4285  
   *Triticum* 1081  
   *Vitis* 10011  
   *Zea*, maize 7047, 8044, 9521  
 malate dehydrogenase  
   *Beta*, sugar beet 6384  
   *Coffea* 8353  
   *Dactylis* 418  
   *Hordeum* × *Triticum* 10531  
   *Persea* 1470  
   *Pinus* 6585  
   *Zea*, maize 1132, 1945, 1974, 3032, 3035, 3038, 4012, 4954, 4962, 4963, 4977, 4979, 5990, 6027, 7033, 8804, 9563, 10463  
 malate NADP oxidoreductase,  
   *Lycopersicon* 1517  
 malic acid  
   *Cicer* 987  
   *Hibiscus* 7404  
   *Lycopersicon* 2641  
   *Prunus*, peach 1434  
   *Vitis* 7615  
 malic enzyme  
   *Beta*, sugar beet 6384  
   *Olea* 9897



Chemicals, as plant constituents *contd.*

- maltose  
*Triticum* 7941  
*Zea*, maize 10436  
*Zea*, sweet corn 7077
- manganese  
*Amaranthus* 8568  
*Arachis* 9900  
*Glycine* 9315  
*Malus* 3524  
*Medicago* 4285  
*Nicotiana* 4437  
*Oryza* 7208  
*Zea*, maize 7064, 8044, 9521
- mellein, *Leptosphaeria* 3960
- menthol, *Mentha* 992, 2766, 2767
- menthone  
*Mentha* 2766, 2767, 4768  
*Pelargonium* 652
- metabolites, *Zea*, maize 8811
- methionine  
*Capsicum* 8380  
*Cicer* 10182  
*Glycine* 1592, 6871  
*Medicago* 10663  
*Oryza* 375  
*Pennisetum* 4112  
*Phaseolus* 2691, 5658, 7741  
*Pisum* 982, 3839, 5703  
*Secale* × *Triticum*, triticales 5952  
*Solanum*, potato 1309  
*Sorghum* 4152  
*Triticum* 6871, 10338  
*Vicia*, broad bean 11083  
*Vigna*, cowpea 6738  
*Zea*, maize 1040, 3050, 6046, 6871, 8792
- methionine, technique, *Hordeum* 1023
- methyl anthranilate, *Vitis* 2539, 2540
- methylchavicol, *Ocimum* 2771
- S-methylcysteine sulphoxide, technique, *Brassica*, kale 1545
- methyleugenol, *Cymbopogon* 3438, 6461
- 5-methylfurfural, *Nicotiana* 9861
- N-methylputrescine oxidase, *Nicotiana* 7456
- β-methylvaleric acid, *Nicotiana* 9861
- minerals  
*Artocarpus* 8435  
*Glycine* 11158  
*Pennisetum* 6117  
*Triticum* 3952
- miscellaneous  
*Capsicum* 7523  
*Lycopersicon* 905, 2649  
*Olea* 3476  
*Pennisetum* 4112
- miscellaneous, technique, crop plants, book 2773
- molybdenum, *Vitis* 10011
- monosaccharides  
*Rubus* 6529  
*Rubus*, blackberry × *Rubus*, raspberry 6529  
*Zea*, maize 8821
- morphine, *Papaver* 2396, 9877, 9878
- mucilage  
*Hibiscus* 7406  
*Hordeum* 5051  
*Sinapis* 4467
- myosmine, *Nicotiana* 9861
- myrcene  
*Apium* × *Petroselinum* 10065, 11001  
*Pinus* 9194
- NADH, *Nicotiana* 10779
- NADP malate dehydrogenase, *Zea*, maize 4045
- NADP malic enzyme, *Zea*, maize 4045
- NDP sugar-starch glucosyltransferase, *Zea*, maize 10428
- neophytadiene, *Nicotiana* 2380
- neoxanthin, *Glycine* 7769
- neurosporene, *Daucus* 836, 6603
- niacin, *Zea*, maize 272
- nickel, *Sorghum* 3152
- nicotine, *Nicotiana* 608, 609, 610, 1016, 2380, 3420, 3438, 4431, 6406, 6414, 6420, 7436, 7440, 7456, 7457, 7462, 8346, 9862, 9863
- nicotine, technique, *Nicotiana* 2381
- nicotinic acid, *Zea*, maize 8811
- nicotyrine, *Nicotiana* 1016

Chemicals, as plant constituents *contd.*

- nitrate  
*Hordeum* 311  
*Lactuca* 5597  
*Medicago* 1259  
*Nicotiana* 8346  
*Prunus*, plum 2490  
*Trifolium*, red clover 1259  
*Zea*, maize 3041, 4974
- nitrate reductase  
cereals, review 84  
grasses 7228  
*Hordeum* 311, 2041, 3104, 7095, 7104, 10529, 10532  
*Nicotiana* 2363, 10779  
*Oryza* 1233  
*Pennisetum* 8874  
*Pisum* 4749  
*Rhizobium* 4287  
*Secale* × *Triticum*, triticales 3981  
*Sorghum* 7133  
*Triticum* 111, 5882, 6942, 7939  
*Zea*, maize 3041, 4949, 4974, 4975
- nitrite reductase  
*Hordeum* 10529  
*Nicotiana* 2363, 10779  
*Pisum* 4749
- nitrogen  
*Allium*, onion 2602  
*Alnus* 3630  
*Amaranthus* 8568  
*Beta*, sugar beet 8322, 9843  
*Betula* 5523, 5525  
*Brassica*, rape 3453  
cereals 86  
review 84  
*Cicer* 6792  
*Citrus*, lemon 10219  
*Cucumis*, cucumber 10042  
*Cucumis*, melon 10042  
*Dactylis* 419, 420, 4252  
*Dioscorea* 2360  
*Fagopyrum* 8931  
*Festuca* 7233  
*Glycine* 8603, 10146, 10148  
*Gossypium* 2308  
*Hibiscus* 1357  
*Hordeum* 89, 2051, 6099  
*Lolium* 7232  
*Lycopersicon* 7723, 10042  
*Malus* 3524, 6487  
*Manihot* 3413, 5335  
*Medicago* 444, 3246, 3252, 7280, 7285  
*Morus* 9974  
*Musa* 1480  
*Nicotiana* 7462  
*Oryza* 5136  
*Phalaris* 4268  
*Phaseolus* 946, 6720, 8582  
*Phleum* 7233  
*Pseudotsuga* 819  
*Psophocarpus* 6801, 6806  
*Secale* 7019  
*Secale* × *Triticum*, triticales 7003  
*Sorghum* 7148  
*Triticum* 85, 1091, 1816, 2919, 2957, 3963, 4881, 5871, 5880, 6926, 6951, 6958  
*Vigna*, minor species 8595  
*Vitis* 3616, 5497, 9164  
*Zea*, maize 260, 1970, 3041, 4041, 4973, 4974, 4975, 7047, 8815, 9556
- nitrogen, technique  
crop plants 5786  
*Nicotiana* 2381
- nitrogenase  
*Alnus* 3630  
*Arachis* 2795  
cereals 10199  
crop plants 10199  
*Sorghum* 2794  
*Trifolium*, white clover 462
- nopaline, *Nicotiana* 6412
- nucleic acids 6843, 9344, 9393, 9394  
*Aegilops* 5806, 8729  
*Allium*, minor species × *Allium*, onion 5722  
*Allium*, onion 10049  
*Arachis* 7510, 9901  
*Atriplex* 7729, 7730  
*Avena* 2828, 2857, 4824  
*Coffea* 8353

Chemicals, as plant constituents *contd.*

- nucleic acids *contd.*  
crop plants 57, 3048, 5798, 6863  
review 8  
*Datura* 5407, 9350  
*Daucus* 6599  
*Euchlaena* 1943, 9531, 9581, 10438  
*Euchlaena* × *Zea*, maize 8022  
*Glycine* 2719, 2730, 2731, 7770, 8604  
*Gossypium* 4377, 5282, 7381  
grasses 4239  
*Helianthus*, sunflower 4474  
*Hordeum* 2805, 2857, 3103, 3107, 4084, 4824, 5806, 6081, 6086, 8841, 9614, 10243  
*Lablab* 5641  
*Lathyrus* 5722  
*Lilium* 15  
*Linum* 3376  
*Lolium* 422, 5722, 8239  
*Malus* 2481  
*Morus* 731  
*Nicotiana* 2366, 2808, 7443, 8331, 10791  
*Oryza* 5136, 9678  
*Oryza* × *Sorghum* 4194  
*Pennisetum* 5064  
*Petroselinum* 6599  
*Petunia* 6847  
*Phaseolus* 3858, 5641  
*Pisum* 57, 975, 976, 6784  
review 5742, 7811  
*Secale* 3014, 4824, 5866, 8777, 8787, 10243, 10418  
*Secale* × *Triticum*, triticales 7978, 8729  
*Sesamum* 9064  
*Solanum*, potato 506  
*Sorghum* 7148  
*Spinacia* 57, 7729, 7730  
*Tripsacum* 9581  
*Triticum* 114, 1066, 1070, 2804, 2919, 3910, 3918, 4824, 5806, 5850, 5866, 6965, 6969, 8729, 10243, 10261, 10327  
*Vicia*, broad bean 1628, 9287  
*Vigna*, cowpea 5641  
*Vigna*, minor species 57  
*Zea*, maize 246, 250, 1943, 1948, 1975, 1976, 1978, 1988, 3040, 3048, 3858, 4017, 4022, 4055, 4971, 4990, 5996, 6029, 7051, 8020, 8026, 8027, 8043, 9531, 9532, 9573, 9581, 10432, 10438, 10468
- Zea*, popcorn 9581
- nucleotides, *Vitis* 6552
- octopine, *Nicotiana* 6412
- oil, essential  
*Apium* × *Petroselinum* 10065, 11001  
*Carum* 8654, 10192, 11198, 11201  
*Chamaecyparis* × *Cupressus* 5530  
*Citrus* 2504  
*Citrus*, orange × *Poncirus* 2504  
*Citrus* × *Poncirus* 2504  
*Coriandrum* 11200, 11201  
*Cymbopogon* 2445, 3484, 4492, 4493  
*Foeniculum* 5717, 11201  
*Fortunella* × *Poncirus* 2504  
*Hierochloa* 6463  
*Houttuynia* 2446  
*Inula* 10838  
*Lavandula* 2447, 10833, 10834, 10836  
*Mentha* 992, 2767, 6823, 7802, 11195  
*Nicotiana* 9859  
*Pelargonium* 652  
*Petroselinum* 8655  
*Pimpinella* 11201  
*Salvia* 10190, 10191  
*Tanacetum* 10832  
*Thymus* 2772, 4770  
*Vetiveria* 5398
- oil, fatty  
*Arachis* 649, 6456, 8374  
*Avena* 3005, 7009  
*Brassica*, review 859  
*Brassica*, oil crops 9053, 10811  
*Brassica*, rape 2404, 3668, 4458, 4465, 8360, 9052  
review 860  
*Capsicum* 655  
*Corylus* 1495  
*Cucurbitaceae* 5600  
*Cuphea* 4490, 4491



Chemicals, as plant constituents *contd.*oil, fatty *contd.*

- Elaeis* 9074, 9894, 9895  
*Eleusine* 2075  
*Glycine* 965, 1588, 1592, 4720, 4729, 6768, 7773, 8606, 10128, 10137, 11146, 11157, 11158, 11161, 11163  
*Gossypium* 529, 1348, 3340, 6346, 10711  
*Guizotia* 9083  
*Helianthus*, sunflower 1409, 1410, 3470, 4473, 5378, 5379, 5385, 6444, 6447, 7490, 8369, 9065, 9066, 9886, 10822  
*Hippophae* 6539  
*Juglans* 785, 10017  
*Linum* 2316, 4396, 7396, 7398  
*Lupinus* 471, 8268  
*Macrotyloma* 2762  
*Mangifera* 9976  
*Medicago* 1271  
*Morus* 9974  
*Nicotiana* 598  
*Prunus*, almond 6562, 10017  
*Psophocarpus* 6801, 6820  
*Raphanus* 859  
*Sesamum* 635, 8366  
*Sinapis* 859  
*Sorghum* 5075, 8137  
*Triticum* 9468  
*Zea*, maize 272, 273, 3058, 4998, 8816  
oil, fatty, technique, oil plants 5785  
oleic acid  
*Arachis* 8374  
*Averrhoa* 5487  
*Brassica*, rape 3668, 4458  
*Glycine* 4730, 7773, 11141  
*Helianthus*, sunflower 642, 9890  
*Lupinus* 471  
*Mangifera* 9976  
*Zea*, maize 272, 273, 1947  
oripavine, *Papaver* 9879  
oxalic acid  
*Colocasia* 9032  
*Macrotyloma* 2763  
*Pennisetum* 10249  
 $\beta$ -N-oxalylaminoalanine, *Lathyrus* 1295, 8960  
paeonidin, *Prunus*, plum 8398  
palmitic acid  
*Arachis* 8374  
*Brassica* 2607  
*Glycine* 1597, 7773  
*Mangifera* 9976  
palmitoleic acid  
*Arachis* 8374  
*Glycine* 11141  
papain, *Trifolium*, red clover 8692  
pectin  
*Chaenomeles* 2485  
*Daucus* 9227  
*Hordeum* 4832  
*Pyrus* 6494  
*Rubus* 6529  
*Rubus*, blackberry  $\times$  *Rubus*, raspberry 6529  
*Triticum* 1827, 4832  
pectinase inhibitor, *Cucumis*, cucumber 887  
pelargonidin, *Raphanus* 3654  
pentosans  
*Secale* 7019, 8010  
*Triticum* 1092  
perloline  
*Festuca* 7234, 7235, 8243  
*Lolium* 7235  
peroxidase  
*Aegilops* 1791  
*Arachis* 7513  
*Avena* 7989  
*Beta*, sugar beet 8327  
*Brassica* 10995  
*Chamaecyparis* 2584  
*Cucumis*, cucumber 883  
*Dactylis* 418  
*Euchlaena* 1129  
*Euchlaena*  $\times$  *Zea*, maize 1129  
*Fragaria* 6537  
*Glycine* 2728  
*Gossypium* 2310, 9817  
*Helianthus*, sunflower 6451  
*Hevea* 3493  
*Hordeum* 317, 1171

Chemicals, as plant constituents *contd.*peroxidase *contd.*

- Ipomoea* 3336  
*Linum* 6363, 9014  
*Lolium* 7247  
*Lycopersicon* 898, 909, 1558, 5633, 7722  
*Medicago* 1266, 2218, 2219, 8254  
*Morus* 8418  
*Nicotiana* 599, 2363, 3431, 3432, 3437, 4434, 6410, 10789  
*Oryza* 380, 1215, 1217, 5125, 5126, 7192, 7205  
*Persea* 1470  
*Pinus* 812, 1508, 3642, 6587, 9190, 10032  
*Poa* 2187  
*Pyrus* 6493  
*Raphanus* 843  
*Sorghum* 336  
*Spinacia* 8519  
*Triticum* 133, 1086, 1791, 1851, 2909, 5852, 5909, 5913, 5914, 6936  
*Vitis* 783, 9164  
*Zea*, maize 1129, 3039, 8820, 8823, 9542  
phaseic acid, *Sorghum* 7156  
phaseollin, *Phaseolus* 4690, 7742, 10108  
phaseollinisoflavin, *Phaseolus* 4690  
 $\alpha$ -phellandrene, *Daucus* 5549  
 $\beta$ -phellandrene, *Pinus* 9194  
phenol oxidase, *Malus* 10862  
phenols  
*Allium*, onion 9235  
*Chamaecyparis* 2584  
*Cucumis*, melon 876  
*Daucus* 9226  
*Helianthus*, sunflower 6448  
*Hevea* 3493  
*Ipomoea* 4362  
*Lolium* 7247  
*Lycopersicon* 6664, 7723  
*Malus* 667  
*Medicago* 2224  
*Nicotiana* 608, 609, 2363, 5350, 7454, 8346  
*Oryza* 5146, 6179  
*Phaseolus* 8584  
*Picea* 4594, 6593  
*Pinus* 1508, 10033, 10034  
*Prunus*, peach 3562  
*Rosa* 651  
*Solanum* 928  
*Solanum*, egg plant 928  
*Solanum*, potato 6306  
*Sorghum* 1189, 4172, 5083, 8704  
*Triticum* 1838, 2977, 3963  
*Vicia*, broad bean 941  
*Vitis* 6553  
*Zea*, maize 4819, 8704  
phenols, technique  
crop plants 1024  
*Ipomoea* 1324, 1325  
*Nicotiana* 2381  
*Sorghum* 1189  
phenylalanine  
*Capsicum* 8380  
*Hordeum* 6084  
*Morus* 8418  
*Nicotiana* 8337  
*Pisum* 9327  
*Prunus*, plum 6504  
*Sorghum* 337  
phenylalanine ammonia lyase, *Nicotiana* 2363  
phloridzin, *Malus* 667  
phosphatase  
*Aegilops* 5904  
*Solanum*, potato 2277  
*Triticum* 2804, 5904, 7932, 7933  
phosphate, *Triticum* 7934  
phosphatidic acid  
*Secale* 5814  
*Triticum* 5814  
phosphatidyl glycerol, *Triticum* 112  
phosphatidylcholine  
*Secale* 5814  
*Triticum* 112, 5814  
phosphatidylethanolamine, *Triticum* 112  
phosphodiesterase, *Triticum* 7932, 7933  
phosphoenolpyruvate carboxylase  
*Brassica*, rape 2401

Chemicals, as plant constituents *contd.*phosphoenolpyruvate carboxylase *contd.*

- Zea*, maize 1952, 1990, 4045, 6011, 7046  
phosphofructokinase, *Lycopersicon* 1517  
phosphoglucosyltransferase  
*Brassica* 3672  
*Citrus*, mandarin 10884  
*Coffea* 8353  
*Hordeum* 10543  
*Lupinus* 5236  
*Lycopersicon* 3713, 11041  
*Persea* 1470  
*Phoenix* 3584  
*Pinus* 6585, 10032  
*Pisum* 5749  
*Zea*, maize 3032, 8804  
6-phosphogluconate dehydrogenase  
*Secale* 7015  
*Coffea* 8353  
*Euchlaena* 6052  
*Lupinus* 5236  
*Pinus* 6585, 10954  
*Pisum* 7787  
*Zea*, maize 3032, 5990, 6052, 9562  
phosphoglucose isomerase  
*Citrus*, mandarin 10884  
*Clarkia* 5749  
*Coffea* 8353  
*Festuca* 427  
*Fragaria* 6537, 9146  
*Hordeum* 10543  
*Hordeum*  $\times$  *Triticum* 10531  
*Lolium* 3221, 9731  
*Lycopersicon* 898, 2643  
*Phoenix* 3584  
*Pinus* 5532, 6585, 10954  
*Solanum*, potato 7316  
*Triticum* 10290  
phosphoglyceromutase, *Triticum* 1816  
phosphohexose isomerase  
*Pinus* 9190  
*Zea*, maize 3032, 8804  
phospholipids  
*Glycine* 11141  
*Juglans* 4576  
*Solanum*, potato 506  
phosphorus  
*Arachis* 9900  
*Brassica*, cabbage 9240  
*Daucus* 9226  
*Dioscorea* 2360  
*Festuca* 6225  
*Gossypium* 538  
grasses 4238  
*Hevea* 10848  
*Macrotyloma* 2762, 2763  
*Malus* 6487  
*Manihot* 3413  
*Medicago* 1271, 4285, 6244  
*Momordica* 10074  
*Morus* 4539  
*Oryza* 2163, 7208, 8171, 10609  
*Pennisetum* 6118  
*Psophocarpus* 6801  
*Setaria* 2063  
*Solanum*, potato 6299  
*Sorghum* 9649  
*Triticum* 1081, 5910  
*Vitis* 5497, 10011  
*Zea*, maize 4041, 4973, 7047, 8044, 9521  
phosphorylase, *Vitis* 9164  
phytase, *Secale*  $\times$  *Triticum*, triticale 1894  
phytic acid  
*Avena* 7008  
*Triticum* 1081  
phytic acid, technique, *Brassica*, rape 6433  
phytoalexins  
crop plants 2821, 2824, 2829  
*Hordeum* 2829  
*Lycopersicon* 3719, 11060  
*Pisum* 2829  
*Solanum*, potato 2823  
*Triticum* 6983  
*Viciae* 2663  
*Zea*, maize 4065  
phytofluene, *Daucus* 6602, 6603  
phytol, *Nicotiana* 2380  
pigments  
*Glycine* 968



Chemicals, as plant constituents *contd.*pigments *contd.*

- Pisum* 2742  
*Triticum* 5870  
*Zea*, maize 1128, 1984  
 $\alpha$ -pinene, *Pinus* 1512, 8478, 9194, 9197  
 $\beta$ -pinene, *Pinus* 1512, 8478, 9194  
 piceolic acid, *Coffea* 8357  
 piperine, *Piper* 31  
 piperitone, *Mentha* 2767, 4768  
 pisatin  
*Lathyrus* 2663  
*Pisum* 2663, 10167  
 polygalacturonase  
*Cryptodiaporthe* 3628  
*Lycopersicon* 1517  
 polypeptides  
*Lycopersicon*  $\times$  *Solanum* 10076  
*Vicia*, broad bean 674  
*Zea*, maize 6028, 7062, 9568  
 polyphenol oxidase  
*Hordeum* 1171  
*Ipomoea* 4362  
*Oryza* 380  
*Triticum* 1078  
*Vitis* 783  
*Zea*, maize 8820  
 polyphenols, *Nicotiana* 3445  
 polysaccharides  
*Paspalum* 2198  
*Zea*, maize 1961  
*Zea*, sweet corn 3084, 9596  
 porphyrins, *Zea*, maize 1985  
 potassium  
*Agrostis* 6214  
*Arachis* 9900  
*Beta*, sugar beet 6387, 6388, 8322, 9843  
*Brassica*, cabbage 9240  
*Dioscorea* 2360  
*Festuca* 6225  
*Malus* 3497, 3524, 6487  
*Manihot* 3413  
*Medicago* 1271, 4285  
*Momordica* 10074  
*Morus* 4539  
*Nicotiana* 7462  
*Oryza* 10609  
*Phleum* 3216  
*Sorghum* 3154  
*Vitis* 3616, 5497, 10011  
*Zea*, maize 272, 1986, 4041, 4973, 8044, 9521  
 potassium sulphate, *Zea*, maize 4034  
 procyanidin, *Lotus* 475  
 prodelphinidin, *Lotus* 475  
 prolamins  
*Aegilops* 6923  
*Agropyron* 6923  
 cereals 1047, 1716, 10242  
 review 1033  
*Euchlaena* 10242  
*Hordeum* 1035, 1036, 4098, 6923  
*Secale* 6923  
*Secale*  $\times$  *Triticum*, triticales 7002  
*Sorghum* 1036, 7148  
*Triticum* 6923  
*Zea*, maize 1036, 8822, 10242, 10480  
 proline  
*Brassica*, rape 8363  
 crop plants 5789  
*Helianthus*, sunflower 9071  
*Hordeum* 1038  
*Lycopersicon* 910, 5629  
*Medicago* 7288  
*Oryza* 5134  
*Secale*  $\times$  *Triticum*, triticales 5952  
*Solanum*, potato 9779  
*Sorghum* 3154  
*Triticum* 6955, 9480  
*Zea*, maize 5006, 6010, 7044, 8028  
 proline, technique, *Zea*, maize 2005  
 propanol, *Sorghum* 3151  
 protease  
*Gibberella* 8064  
*Nicotiana* 8692  
*Sorghum* 7148  
*Triticum* 2909, 7939  
*Zea*, maize 3041  
 protease inhibitor  
*Glycine* 932  
*Phaseolus* 932  
*Zea*, maize 8064

Chemicals, as plant constituents *contd.*

- protein 1614, 1615, 2788, 10090  
*Aegilops* 4844, 6923, 7912, 7974  
*Aegilops*  $\times$  *Triticum* 1767  
*Agropyron* 6923, 7911, 8247, 8949  
*Arachis* 6456  
*Artocarpus* 8435  
*Atylosia* 6819  
*Atylosia*  $\times$  *Cajanus* 6815  
*Avena* 2828, 3005, 5962, 5967, 7009, 7984, 7989, 7990, 8782  
*Beta*, fodder beet 4319  
*Brassica* 6615, 6870  
*Brassica*, rape 2404, 4465, 6431, 7485, 8360  
*Cajanus* 1018, 1608, 6819  
*Cannabis* 10734  
*Celosia* 5637  
 cereals 80, 86, 1018, 1019, 1025, 1047, 1715, 1716, 9426  
 review 1021  
*Cicer* 3789, 6792, 7792, 8952  
*Corylus* 1495  
 crop plants 6870, 10234  
 review 1018, 1019, 1024  
*Cucurbita* 4631  
*Cucurbitaceae* 5600  
*Cyamopsis* 1294  
*Cynodon* 421  
*Dactylis* 7231, 8934  
*Datura* 5407  
*Dioscorea* 2360  
*Eleusine* 2075  
*Elymus* 8247  
*Eragrostis* 9738  
*Euchlaena* 1129  
*Euchlaena*  $\times$  *Zea*, maize 1129, 7041  
*Fagopyrum* 3203, 8930, 8933  
*Festuca* 8241, 8243, 8934, 8947, 9735  
*Glycine* 965, 968, 969, 1588, 1592, 2733, 3762, 4717, 4720, 6753, 6765, 6768, 6771, 6871, 7772, 8606, 10128, 10137, 11145, 11146, 11157, 11158, 11163  
*Gossypium* 9814  
 grasses 5159, 7228, 7232  
*Hibiscus* 10739  
*Hordeum* 307, 1023, 1030, 1035, 1036, 1038, 1163, 1718, 2034, 2040, 2044, 2045, 2048, 2049, 2050, 2051, 2053, 3111, 3112, 3116, 3117, 3118, 4098, 4099, 5026, 5034, 5041, 5042, 5043, 5044, 5047, 5056, 6084, 6094, 6923, 7102, 7106, 7984, 8121, 8123, 8701, 8702, 8860, 8861, 8862, 8863, 8864, 9426, 9602, 9610, 9612, 9614, 9615, 10241, 10523, 10552  
*Ipomoea* 4361  
*Juglans* 785, 10017  
*Lablab* 6812  
*Lathyrus* 8951, 8952, 8960  
*Leguminosae* 10090  
*Lens* 2754, 8951, 8952  
*Lolium* 424, 425, 7232, 8241  
*Lotus* 1291  
*Lupinus* 1289, 6870, 8268, 8951  
*Lycopersicon* 1558, 3717, 4659, 6651  
*Macrotyloma* 2762  
*Manihot* 3408  
*Medicago* 450, 1271, 2216, 2226, 3243, 5220, 6244, 6870, 7279, 7281, 7282, 8257, 9748, 9750  
*Momordica* 10074  
*Morus* 6520, 9974  
*Nicotiana* 614, 3432, 4444, 6410, 6414, 8341, 9036  
*Olea* 7502  
*Oryza* 359, 371, 373, 377, 1018, 1214, 1217, 1227, 3170, 6144, 6156, 6158, 6160, 6161, 6162, 6164, 6165, 7195, 8156, 8171, 10609, 10610, 10611  
*Panicum* 4106  
*Pennisetum* 2793, 4112, 6117, 8874, 10559  
*Petunia* 6847  
*Phalaris* 8934  
*Phaseolus* 1572, 1573, 3735, 5657, 5658, 6715, 7741, 7745, 8577, 8582, 10099, 10107, 11100, 11101, 11103  
*Phleum* 3216  
*Picea* 815, 6593  
*Pinus* 8479

Chemicals, as plant constituents *contd.*protein *contd.*

- Pisum* 975, 982, 1603, 3780, 3839, 4752, 4753, 5704, 6784, 6787, 7780, 8952, 9321, 10174, 10175, 11178, 11181  
*Poa* 8934  
*Prunus*, almond 10017  
*Psophocarpus* 6801, 6820, 8632, 8638, 8640  
 pulses 1025  
 review 1021  
*Pyrus* 10870  
*Secale* 1914, 4943, 6923, 7984, 7994, 8003, 8010, 8011, 8789  
*Secale*  $\times$  *Triticum* 10297  
*Secale*  $\times$  *Triticum*, triticales 217, 223, 1880, 1893, 2948, 5952, 5953, 7003, 7984, 7985, 9502  
*Sesamum* 9064  
*Setaria* 2063  
*Solanum* 928  
*Solanum*, egg plant 928  
*Solanum*, potato 496, 501, 506, 1306, 2267, 2823, 7330, 7333, 8282, 8291, 8292, 8967, 8979, 8980, 9784, 9785, 9788  
*Sorghastrum* 8248, 9743  
*Sorghum* 1018, 1030, 1036, 1190, 3152, 4145, 4151, 4152, 5075, 6120, 7138, 7141, 7147, 7148, 8130, 8135, 8137, 8140, 9644, 9648, 10570, 10580  
*Theobroma* 5362  
*Trifolium*, red clover 459  
*Trifolium*, white clover 7230  
*Trigonella* 8257  
*Tripsacum* 7078  
*Tripsacum*  $\times$  *Zea*, maize 247, 248  
*Triticum* 85, 87, 133, 141, 145, 150, 182, 183, 184, 223, 1022, 1025, 1029, 1060, 1089, 1090, 1091, 1093, 1095, 1100, 1709, 1718, 1741, 1765, 1792, 1809, 1810, 1812, 1815, 1818, 2850, 2882, 2883, 2890, 2909, 2919, 2945, 2948, 2949, 2952, 2953, 2954, 2955, 2957, 3877, 3889, 3916, 3938, 3945, 3951, 3952, 4844, 4847, 4866, 4869, 4870, 4878, 4880, 4881, 4900, 5812, 5826, 5828, 5833, 5848, 5894, 5903, 5913, 5914, 6871, 6908, 6923, 6926, 6934, 6956, 6957, 6963, 7904, 7911, 7912, 7913, 7929, 7939, 7940, 7941, 7942, 7944, 7984, 8702, 8710, 8749, 8754, 9426, 9431, 9448, 9467, 9468, 9473, 9474, 9477, 10302, 10304, 10337, 10338, 10339, 10341, 10345, 10353  
 symposium 1088  
 vegetable crops 826  
*Vicia*, broad bean 27, 2671, 2676, 2678, 2679, 3725, 4680, 8951, 8952, 10092, 10095, 11083, 11084  
*Vicia*, vetch 8952  
*Vigna*, cowpea 1018, 7754  
*Vigna*, minor species 1644, 8594, 9306, 10123  
*Vitis* 3613, 9164  
*Zea*, maize 246, 266, 267, 269, 270, 271, 274, 275, 1018, 1030, 1032, 1036, 1037, 1129, 1961, 1981, 1984, 1988, 1991, 1994, 1995, 3045, 3047, 3050, 3058, 3062, 3068, 4024, 4041, 4052, 4055, 4056, 4057, 4063, 4992, 4994, 4998, 5812, 5994, 6006, 6022, 6046, 6048, 6051, 6871, 7025, 7026, 7048, 7059, 7062, 7064, 8029, 8050, 8702, 8815, 8816, 8819, 8820, 9521, 9556, 9557, 9578, 9579, 10468, 10483, 10484, 10485  
*Zea*, sweet corn 6051  
 protein, technique  
 cereals 76, 1023  
 review 6882  
 crop plants 1023, 1024, 3863, 9411  
*Glycine* 9411  
*Hordeum* 76, 1039, 3885, 5040, 8700  
*Oryza* 1039  
*Prunus*, peach 5445  
*Psophocarpus* 6820  
*Secale* 76  
*Secale*  $\times$  *Triticum*, triticales 76  
*Sorghum* 1039, 2092



Chemicals, as plant constituents *contd.*protein, technique *contd.*

*Triticum* 76, 1039, 1094, 1096, 1811,  
3885, 3943, 3950, 4874, 4877, 4882,  
5898, 5900, 8700

*Vicia*, broad bean 11086

*Zea*, maize 1039, 4995, 9411, 9553,  
9554, 9555

protochlorophyllide

*Hordeum* 3110

*Zea*, maize 1985

protoporphyrins, *Zea*, maize 4016

prunasin, stone fruits 9952

pterostilbene, *Vitis* 6558

pulegone, *Mentha* 2766, 2767, 4768,  
11195

putrescine *N*-methyltransferase, *Nicotiana*  
7456

pyrazines, *Arachis* 7515pyruvic acid, *Allium*, onion 2602, 9235quercetin 4'-glucoside, *Malus* 667

quinolinic acid phosphoribosyltransferase,  
*Nicotiana* 7456

quinones

*Aegilops* 8699

*Triticum* 8699

raffinose, *Cicer* 10183

resin

*Picea* 816

*Pinus* 1506, 9197, 10037

resorcinols

*Secale* 1650, 1914, 8010

*Secale* × *Triticum*, tritcale 5950

resveratrol, *Vitis* 6558rheoadine, *Papaver* 1390riboflavin, *Zea*, maize 272

ribonuclease

*Beta*, sugar beet 8328

*Hordeum* 8841

*Oryza* 1217

*Sorghum* 7148

*Triticum* 7932, 7933

*Zea*, maize 3068, 8045

ribulose 1,5-diphosphate carboxylase

*Nicotiana* 2369, 6407

*Arachis* 7511

*Brassica* 857

*Gossypium* 2296, 4380

*Hordeum* 3107

*Lolium* 423, 6222

*Lycopersicon* × *Solanum* 10076

*Lycopersicon* - *Solanum*, potato 11042

*Medicago* 7275

*Nicotiana* 607, 1381, 10262, 10790

*Oryza* 360, 9678

*Solanum*, potato 6300

*Triticum* 10262

*Vigna*, minor species 4707

*Zea*, maize 4017, 4045, 6011, 7046,  
8019

ribulose 1,5-diphosphate oxygenase,

*Medicago* 7275

rishitin

*Lycopersicon* 9281, 11060

*Solanum*, potato 5261

rutin, *Nicotiana* 7454

saponins

*Medicago* 454, 1259, 7283, 7284

*Panax* 9098

*Trifolium*, red clover 1259

scopolamine, *Atropa* 9919, 9920

serine

*Morus* 8418

*Nicotiana* 8345

*Oryza* 377

*Secale* × *Triticum*, tritcale 5952

serine protease inhibitor, *Hordeum*  
10546

shikimate dehydrogenase

*Lycopersicon* 898

*Pisum* 5749

sieboldin, *Malus* 667

silica

*Hordeum* 4832

*Triticum* 4832

sinalbin, *Brassica*, rape 3464

sinapine, technique

*Brassica* 10232

*Lepidium* 10232

*Raphanus* 10232

*Sinapis* 10232

sinigrin

*Brassica* 10054

Chemicals, as plant constituents *contd.*sinigrin *contd.*

*Crambe* 10054

Cruciferae 10054

*Eruca* 10054

sitosterol

*Glycine* 1597

*Urginea* 9096

 $\beta$ -sitosterol, *Averrhoa* 5487

sodium

*Agrostis* 6214

*Beta*, sugar beet 6387, 6388, 8322,  
9843

*Medicago* 5220

*Prunus*, plum 2490

 $\alpha$ -solamarine, *Solanum*, potato 7333 $\beta$ -solamarine, *Solanum*, potato 7333solanesol, *Nicotiana* 2380solanesol, technique, *Nicotiana* 597

solanine, *Solanum*, potato 503, 5255,  
7360

 $\alpha$ -solanine, *Solanum*, potato 7333solasodine, *Solanum* 1421solatriose, *Solanum*, potato 7359

sorbitol

Rosaceae 2786

*Zea*, sweet corn 7077

starch

*Aesculus* 2573

*Allium*, onion 8668

*Arachis* 6944

*Beta* 8668

*Betula* 5525

*Capsicum* 8668

*Carica* 9143

cereals, review 80

*Cicer* 6792

*Corylus* 1495

*Cucurbita* 8668

*Cynodon* 5174

*Datura* 8668

*Glycine* 6944

*Hordeum* 89, 1035, 2040, 3112, 3122,  
4098, 4100, 5044, 6944, 7106, 7107,  
10543

*Hordeum* × *Secale* 8112

*Lens* 2754

*Manihot* 3404, 3407

*Medicago* 444, 1271

*Nicotiana* 1368, 1369, 6944

*Oryza* 373, 2163, 10608

*Paspalum* 2198

*Pennisetum* 6118

*Pisum* 10170

*Secale* 8009

*Secale* × *Triticum* 10297

*Sesamum* 8668

*Solanum*, egg plant 8668

*Solanum*, potato 485, 500, 502, 2257,  
3316, 3321, 4335, 5256, 7323, 8291,  
8292, 8967, 8977, 8978, 8979, 9771,  
9783, 9788

*Sorghum* 1188, 3141, 3152

*Triticum* 79, 1812, 3963, 4872, 5828,  
6944, 8668

*Vitis* 3614

*Zea*, maize 269, 272, 1036, 3064, 3066,  
8045, 8816, 10482

*Zea*, sweet corn 3084

starch branching enzyme, *Zea*, maize

8818

starch phosphorylase, *Hordeum* 8118starch synthetase, *Zea*, maize 8037, 8818starch, technique, *Triticum* 4883

stearic acid

*Arachis* 8374

*Mangifera* 9976

*Olea* 7502

*Zea*, maize 272

sterols

*Brassica*, oil crops 6617

*Brassica*, rape 6617

*Glycine* 1597, 7778

*Hippophae* 10001

*Nicotiana* 598, 2380

*Sinapis* 6617

sterols, technique, *Nicotiana* 2381stevioside, *Stevia* 3418

stigmaterol

*Glycine* 1597

*Urginea* 9096

suberin, *Betula* 10949Chemicals, as plant constituents *contd.*

sucrose

*Beta*, sugar beet 2344, 2346, 4413,  
4415, 6388

*Brassica*, Brussels sprouts 2610

*Brassica*, cabbage 2610

*Brassica*, red cabbage 2610

*Carica* 9143

cereals, review 80

*Cicer* 10183

*Citrullus* 6638

*Cucumis*, melon 5604

*Cynodon* 421, 5174

*Daucus* 5549

*Phoenix* 7576

*Prunus*, plum 8399

*Ricinus* 2405

*Saccharum* 5320, 7412

*Solanum*, potato 1311, 7332, 8287

*Triticum* 3938

*Zea*, maize 260, 8821

sucrose phosphate synthetase, *Zea*, maize  
3044

sucrose synthetase

*Beta*, sugar beet 4415

*Zea*, maize 4978, 8025, 8037, 10432

sucrose, technique, *Solanum*, potato 494

sucrose-UDP glucosyltransferase, *Zea*,  
maize 1996

sugar

*Achras* 4562

*Allium*, garlic 9237

*Ananas* 2533

*Arachis* 6944

*Beta* 10761

*Beta*, beetroot 9219

*Beta*, fodder beet 2349, 10761

*Beta*, sugar beet 577, 578, 2345, 2349,  
4414, 4415, 7426, 8322, 9843, 10761,  
10769

*Brassica*, Brussels sprouts 2610

*Brassica*, cabbage 2610

*Brassica*, red cabbage 2610

*Capsicum* 7521

*Carica* 7577

*Cicer* 6792, 10183

*Citrus*, grapefruit 9963

*Citrus*, lemon 9963

*Citrus*, mandarin 2509

*Citrus*, pomelo 9963

*Corylus* 1495

*Cydonia* 4505, 6496, 9113

*Daucus* 837, 5550, 9226, 9227

*Festuca* × *Lolium* 5180

*Glycine* 6944, 11146

*Hordeum* 1035, 3122, 6944

*Lycopersicon* 4646, 4650, 6651

*Malus* 4505, 9933

*Manihot* 581, 7429

*Morus* 3580

*Musa* 1480

*Nicotiana* 1368, 1369, 3420, 6420,  
6944, 7447

*Oryza* 2163, 5146, 8171

*Pennisetum* 9633

*Phleum* 4257

*Pisum* 977, 10172

*Prunus*, cherry 6505

*Prunus*, peach 3560

*Prunus*, plum 707, 8399

*Pyrus* 4505, 6494

*Ricinus* 2405

*Rubus*, raspberry 4544

*Saccharum* 2333, 4403

*Solanum*, potato 6306, 9784, 9785

*Sorghum* 3152, 4174, 6127, 8878



Chemicals, as plant constituents *contd.*sugars, reducing *contd.**Phoenix* 7576*Prunus*, plum 707*Solanum*, potato 1311, 3318, 6306*Triticum* 7934sugars, reducing, technique, *Solanum*,  
potato 494

sulphur

*Cicer* 10182*Vicia*, broad bean 11084

sulphydryl compounds

*Hordeum* 1676*Pisum* 1676*Triticum* 3921*Vicia*, broad bean 936*Zea*, maize 4037

superoxide dismutase

*Brassica* 3672*Nicotiana* 8340, 8343*Oryza* 7192*Zea*, maize 4976syringic acid, *Triticum* 8745

tannin

*Achras* 4562*Arachis* 6459*Astragalus* 6242*Cajanus* 5639*Camellia* 10217*Gossypium* 5308, 6360*Humulus* 10807*Medicago* 6242, 6248, 7283*Onobrychis* 6242*Pinus* 4590*Salix* 801*Sorghum* 2093, 2094, 2096, 3152,

3153, 4158, 5079, 5080, 7139, 7234,

8133, 8135, 8137, 8148, 8884, 10249,

10578, 10581

*Trigonella* 6242*Vicia*, broad bean 6684, 11085*Vigna*, cowpea 5639*Vitis* 6553*Voandzeia* 6277tannin, technique, *Sorghum* 2093tar, *Nicotiana* 596, 608, 609, 3438, 7455,  
8346

tartaric acid

*Hibiscus* 7404*Vitis* 7615

terpenoids

*Apium* × *Petroselinum* 10065, 11001*Artemisia* 3490*Chamaecyanis* × *Cupressus* 5530*Chamaecyparis* × *Cupressus* 5530*Daucus* 837*Gossypium* 6361*Hordeum* 1171*Nicotiana* 611, 2380*Pinus* 1512, 3640, 5538*Vitis* 4571terpinolene, *Daucus* 5549tetrahydrocannabinol, *Cannabis* 559,  
2318, 5315, 9829thebaine, *Papaver* 9877, 9878, 9879thiamine, *Zea*, maize 8811

threonine

*Cynodon* 421*Hordeum* 1038*Morus* 8418*Secale* × *Triticum*, triticales 5952*Sorghum* 337, 1190*Triticum* 10338*Zea*, maize 1126, 10439, 11203thymol, *Thymus* 8653

tomatine

*Lycopersicon* 4652*Solanum*, potato 7333 $\alpha$ -tomatine, *Lycopersicon* 921, 11060

transaminase

*Avena* 2856*Hordeum* 2856*Zea*, maize 2856triacylglycerol, *Glycine* 11141trilobatin, *Malus* 667triose phosphate isomerase, *Lycopersicon*  
898, 3713

trypsin

*Glycine* 4729*Phaseolus* 10108

trypsin inhibitor

*Glycine* 1592, 6676, 7772, 11136,

11157

Chemicals, as plant constituents *contd.*trypsin inhibitor *contd.**Ipomoea* 4361*Lupinus* 6676*Pisum* 4751, 5704, 6676*Secale* × *Triticum*, triticales 10397*Triticum* 9482*Vicia*, broad bean 2678, 6676, 11085*Vicia*, vetch 466, 6270*Vigna*, cowpea 2702, 5669, 6676, 9304*Voandzeia* 6277*Zea*, maize 3057, 7064*Zea*, popcorn 3057

trypsin inhibitor, technique

*Glycine* 6770*Hordeum* 2858*Secale* 2858tryptic peptides, *Lycopersicon* - *Solanum*,  
potato 11042

tryptophan

*Cajanus* 1018*Cicer* 3789, 10182*Glycine* 6871*Oryza* 1018*Panicum* 7119*Phaseolus* 5658, 8580*Pisum* 982, 4752, 5704, 9327*Sorghum* 1018, 4152*Triticum* 1090, 2954, 6871, 10338*Vigna*, cowpea 1018*Zea*, maize 1018, 1032, 1944, 1994,

3033, 3058, 5994, 6006, 6045, 6048,

6050, 6051, 6871, 7060, 7061, 8816,

10503

*Zea*, sweet corn 6051tryptophan, technique, *Hordeum* 1023tyrosinase, *Triticum* 1792

tyrosine

*Pisum* 8620*Prunus*, plum 6504*Sorghum* 337*Triticum* 6955

UDPGlucose : flavonoid 3-O-

glucosyltransferase, *Zea*, maize 4039,  
4953UDPGlucose pyrophosphorylase, *Hordeum*  
8118urease, *Glycine* 4729uridine, *Zea*, maize 1988

valine

*Oryza* 377*Pisum* 9327*Sorghum* 337, 1190*Zea*, maize 6046

vicilin

*Pisum* 2802, 3839, 5705*Vicia*, broad bean 11084vicine, *Vicia*, broad bean 6692, 6693 $\alpha$ -viniferin, *Vitis* 6558 $\epsilon$ -viniferin, *Vitis* 6558

5-vinylloxazolidinethione

*Brassica*, swede 3305*Brassica*, turnip 3305violaxanthin, *Glycine* 7769

vitamin A, vegetable crops 826

vitamins

*Carica* 9143*Eleusine* 2075*Triticum* 5831

vitexin

*Larix* 6594*Sorbus* 668

volatile compounds

*Arachis* 7515*Daucus* 5549*Fragaria* 6536*Lycopersicon* 5622*Malus* 3532*Mangifera* 8419*Vitis* 5500water, *Zea*, maize 5003

wax

*Brassica* 10054

cereals 7872

*Crambe* 10054

Cruciferae 10054

*Eruca* 10054*Oryza* 5141*Ricinus* 4468*Secale* 10419*Sorghum* 1195, 4123, 4146, 6121*Triticum* 1856, 2915*Vaccinium* 3596Chemicals, as plant constituents *contd.*wax *contd.**Zea*, maize 6054, 10469

wyerone

*Lens* 2663*Vicia*, broad bean 2663*Vicia*, vetch 2663xanthine dehydrogenase, *Nicotiana*

10779

xanthophyll

*Daucus* 6602*Olea* 9897xanthotoxin, *Heracleum* 9767xylose, *Capsicum* 8380zearalenone, *Triticum* 10492zein, *Zea*, maize 260, 268, 1030, 1032,

1034, 1133, 1950, 1992, 3047, 4053,

4057, 4994, 5997, 6048, 7044, 7061,

7062, 8029, 8045, 9579, 10452, 10486

zein, technique, *Zea*, maize 4996

zinc

*Arachis* 9900*Brassica*, rape 7486*Glycine* 9315, 9316*Malus* 3524*Medicago* 4285*Sorghum* 3152*Triticum* 1081*Vitis* 10011*Zea*, maize 8044, 9521

## Chemicals, cytological effects

acetylsalicylic acid, *Allium*, onion 5740

actinomycin D

*Hordeum* 4090*Lycopersicon* 58, 1555*Secale* × *Triticum*, triticales 58*Triticum* 58adenosine, *Lycopersicon* 1555

aminoacids

*Lycopersicon* 58*Secale* × *Triticum*, triticales 58*Triticum* 58

5-aminouracil

*Allium*, onion 10050*Hordeum* 301ammonium sulphate, *Camellia* 1014antioxidants, *Triticum* 3917

azide, sodium

*Triticum* 8685*Vicia*, broad bean 86855-bromodeoxyuridine, *Allium*, onion

2784, 9351

caffeine

*Allium*, onion 10050*Triticum* 2902*Vicia*, broad bean 20, 2781captan, *Zea*, maize 4970chlorflurecol, *Allium*, onion 2785*Cladosporium* extract, *Lycopersicon*

1556

*Cochliobolus* toxin, *Zea*, maize 284

colchicine

*Erianthus* × *Saccharum* 7416*Hordeum* 3836*Lycopersicon* 58*Pisum* 980*Secale* × *Triticum*, triticales 58*Solanum*, potato 8284*Sorghum* 5076*Triticum* 58, 4855*Zea*, maize 8810cuprosan, *Lycopersicon* 895cycloheximide, *Zea*, maize 4972, 9549cytokinins, *Nicotiana* 2364cytostasan, *Vicia*, broad bean 100972,4-D, *Allium*, onion 19*p*-dichlorobenzene, *Zea*, maize 7045diethyl methanesulphonate, *Lycopersicon*  
904

diethyl sulphate

*Hordeum* 10540*Lycopersicon* 1555*Oryza* 4198

diisopropyl benzyl phosphorothioate,

*Hordeum* 2029, 2030

dimethoate

*Citrus*, lemon 1014*Citrus*, orange 1014

dimethyl sulphate

*Glycine* 966*Hordeum* 4090*Lycopersicon* 1555diphenamid, *Lycopersicon* 895



Chemicals, cytological effects *contd.*

## DMSO

*Oryza* 4198  
*Pisum* 974  
*Triticum* 4855  
 endosulfan, *Hordeum* 2029, 2030, 10538  
 ethane methanesulphonate, *Papaver* 9050  
 ethanol, *Vicia*, broad bean 10097, 11081  
 ethyl methanesulphonate

*Allium*, onion 19  
*Lens* 1607  
*Lycopersicon* 904, 1555  
*Trigonella* 8271

ethylene diaminetetraacetic acid, *Zea*, maize 4025

ethylene oxide, *Pinus* 7637

## ethyleneimine

*Allium*, minor species 10993  
*Glycine* 966  
*Gossypium* 531  
*Hordeum* 10229  
*Pisum* 980  
*Vigna*, minor species 3744

fenitrothion, *Hordeum* 2029, 2030

fenthion, *Hordeum* 2029, 2030

## 5-fluorouracil

*Hordeum* 4090

*Lycopersicon* 1555

*Fusarium* extract, *Lycopersicon* 1556

## GA

*Avena* 10404  
 crop plants 1009  
*Vicia*, broad bean 20

griseofulvin, *Medicago* 4282

herbicides, *Hordeum* 2030

hydroxylamine, *Vigna*, minor species 3744

## IAA

*Allium*, onion 3655  
 crop plants 1009

*Vicia*, broad bean 20, 2781

kinetin, *Lycopersicon* 1555

kryptofix 222, *Zea*, maize 4025

methyl ethanesulphonate, *Lens* 1607

methyl methanesulphonate

*Hordeum* 10540

*Lens* 1607

## MH

*Hordeum* 9603, 10229

*Trigonella* 8271

*Vicia*, broad bean 10097, 10229, 11081

## mitomycin C

*Hordeum* 10229

*Lycopersicon* 58

*Secale* × *Triticum*, triticales 58

*Triticum* 58

*Vicia*, broad bean 10097, 10229, 11081

## N-nitroso-N-ethylurea

*Glycine* 966

*Pisum* 980

*Secale* × *Triticum*, triticales 7977

*Triticum* 176

## N-nitroso-N-methylurea

*Allium*, minor species 10993

*Hordeum* 8108

*Pisum* 980

*Secale* × *Triticum*, triticales 7977

*Triticum* 7920, 8685

*Vicia*, broad bean 8685

nitrous oxide, *Capsicum* 1417

nucleic acids, *Hordeum* 8846

## parathion-methyl

*Lycopersicon* 895

*Triticum* 2907

pesticides, *Hordeum* 5033

phosalone, *Lycopersicon* 895

procaine, *Hordeum* 2036, 8845

sodium benzoate, *Vicia*, broad bean 1628

sodium nitrite, *Hordeum* 4090

sodium sulphite, *Vicia*, broad bean 1628

superphosphate, *Allium*, garlic 6831

*Tamarindus* extract, *Allium*, onion 5741

## Tanacetum extract

*Hordeum* 3882

*Triticum* 3882

2-thioxanthene, *Lycopersicon* 1555

## triaziquone

*Hordeum* 10229

*Vicia*, broad bean 10229

trifluralin, *Allium*, onion 1008

*Verticillium* extract, *Lycopersicon* 1556

## Chemicals, fertility and sex, effects

## ABA

*Cucumis*, melon 2622

*Triticum* 3923

acridine, *Triticum* 5890

## actinomycin D

*Fagopyrum* 3202

*Petunia* 6847

alkanes, *Brassica*, Brussels sprouts 2615,

5571

aminoacids, *Ricinus* 5374

ε-aminocaproic acid

*Lablab* × *Macrotyloma* 9408

*Vigna*, cowpea 9408

aminoethoxyvinylglycine

*Citrullus* 8530

*Cucumis* 10977

*Cucumis*, cucumber 5611, 11027

*Cucumis*, melon 7681

arginine, *Ricinus* 5374

arsenate, zinc methyl, *Oryza* 2135

## BA

*Coriandrum* 11199

*Vitis* 2552

6-benzylaminopurine

*Cannabis* 4399

*Glycine* 2724

6-benzylamino-9-(tetrahydro-2-pyryl)-

purine, *Asparagus* 5564

1,4-bis(diazoacetyl)butane

*Fragaria* 676

*Ribes*, black currant × *Ribes*,

gooseberry 676

## boric acid

*Gossypium* 4374

*Malus* 7551

boron, *Fragaria* 757

cadmium, *Fagopyrum* 3202

carbon dioxide, *Brassica*, rape 2401

chloramphenicol, *Petunia* 6847

chlorflurecol, *Cucumis*, melon 2622

chlormequat, *Cucumis*, cucumber 9253

## cobalt chloride

*Cannabis* 1355

*Ricinus* 1408

## colchicine

*Fragaria* 676

*Gossypium* 3360

*Pennisetum* 6113

4-CPA, *Phoenix* 4542

cuprenil, *Secale* × *Triticum* 7995

cycloheximide, *Petunia* 6847

cysteine, *Cucurbita* 879

## cytokinins

*Glycine* 2724

*Vitis* 8441

## 2,4-D

*Malus* 7551

*Phoenix* 4542

dalapon, *Capsicum* 9091

daminozide, *Lactuca* 10975

2,3-dichloroisobutyrate, sodium

*Capsicum* 9091

*Pennisetum* 325

*Sesamum* 9064

dimethyl sulphate

*Dactylis* 4254

*Fragaria* 9144

*Prunus*, plum 9938

## ethephon

*Arachis* 3478

*Citrullus* 8530

*Cucumis*, cucumber 885, 1550, 2629,

6643, 7690

*Cucumis*, melon 2622

*Cucurbita* 2626

*Hibiscus* 10743

*Morus* 733

*Oryza* 9367

*Panicum* 9622, 9623

*Triticum* 1063, 5877

ethyl methanesulphonate, *Eleusine* 329

ethyleneimine, *Vigna*, minor species 3744

## GA

*Allium*, leek 10972

*Allium*, onion 10972

*Asparagus* 5564

*Brassica*, Brussels sprouts 7669

*Brassica*, cabbage 7669

*Brassica*, cauliflower 7669

*Brassica*, kale 7669

*Cannabis* 4399

*Coriandrum* 11199

Chemicals, fertility and sex, effects *contd.*GA *contd.*

*Cucumis*, cucumber 884, 885, 1550, 6644, 9253

*Cucumis*, melon 2622, 7681

*Datura* 7527

*Helianthus*, sunflower 2414, 2416,

6446, 6448

*Hordeum* × *Secale* 8093

*Lactuca* 10975

*Lycopersicon* 2644, 3709

*Phaseolus* 7744

*Picea* 4593, 8489

*Pinus* 3638, 3639, 9193

*Triticum* 3923

*Vitis* 2467

gametocides, *Triticum* 6952

glucose, *Asparagus* 5564

glutamic acid

*Cucurbita* 879

*Ricinus* 5374

growth regulators, *Cucumis*, cucumber

4634

hydroxylamine, *Vigna*, minor species

3744

IAA, *Helianthus*, sunflower 6448

## kinetin

*Cucumis*, melon 2622

*Fagopyrum* 3202

*Hordeum* × *Secale* 8093

leucine, *Ricinus* 5374

*Luffa* extract, *Cucurbita* × *Luffa* 9251

maleic hydrazide

*Capsicum* 9091

*Cenchrus* 7267

*Secale* 3020

*Sesamum* 9064

malic acid, *Cicer* 987

manganese, *Fragaria* 757

MH, *Secale* 8791

mineral oil, *Brassica*, Brussels sprouts

10973

miscellaneous, *Hordeum* 8853

morphactin, *Cucumis*, melon 2622

## NAA

*Cucumis*, melon 2622

*Picea* 8489

*Pinus* 3638, 3639

*Secale* 3020, 8791

nitrogen, *Fragaria* 757

N-nitroso-N-ethylurea

*Dactylis* 4254

*Fragaria* 676

*Ribes*, black currant × *Ribes*,

gooseberry 676

*Secale* × *Triticum*, triticales 7001

N-nitroso-N-methylurea

*Fragaria* 9144

*Prunus*, plum 9938

olivomycin, *Petunia* 6847

paraffin, *Brassica*, Brussels sprouts 2615,

3686, 5571

potassium, *Fragaria* 757

potassium nitrate, *Mangifera* 1466

pyrogallol, *Cucurbita* 880

salicylic acid, *Cucurbita* 880

serine, *Ricinus* 5374

## silver nitrate

*Cucumis*, cucumber 884, 6644, 10977

*Cucumis*, melon 7681

*Ricinus* 1408

silver thiocyanate, *Cucumis*, cucumber

10977

silver thiosulphate, *Cucumis*, cucumber

884, 6644

streptovaricin, *Cannabis* 6365

surfactants, nonionic, *Zea*, maize 1980



Chemicals, general effects *contd.*

- Alternaria* toxin, *Carthamus* 2427  
aluminium  
  *Agropyron* 7869  
  cereals 10235  
  *Festuca* 10642  
  *Glycine* 10251  
  *Gossypium* 3361, 10719  
  *Hordeum* 3089  
  *Manihot* 4422, 6393  
  *Medicago* 3248  
  *Oryza* 4815, 8156  
  *Panicum* 6110  
  *Phaseolus* 3865, 4815  
  pulses 10235  
  *Secale* 1115, 1890, 7869  
  *Secale* × *Triticum*, triticaie 1115,  
    1890, 5836, 7869  
  *Sorghum* 4815, 8146  
  *Triticum* 1115, 1755, 1890, 2850,  
    2959, 3865, 4815, 5835, 6907, 7869,  
    7887, 10251  
  *Zea*, maize 4815  
aluminium, technique, *Triticum* 10361  
aminoethoxyvinylglycine, *Glycine* 6766  
S-2-aminoethylcysteine  
  *Oryza* 6151  
  *Daucus* 10045  
ammonium sulphate, *Zea*, maize 10490  
antibiotics, *Rhizobium* 947  
asulam, *Apium* 3692  
atrazine  
  *Avena* 1112  
  *Brassica* 1392  
  *Brassica*, rape 1393, 1406  
  *Cucumis*, cucumber 3703  
  *Gossypium* 9821  
  *Hordeum* 2863  
  *Populus* 9183  
  *Triticum* 2863  
  *Zea*, maize 3049, 3080, 3081, 8054  
8-azaguanine, *Nicotiana* 1016  
BA  
  *Malus* 2477  
  *Sorghum* 2086  
  *Zea*, maize 7043  
bacterial toxins, crop plants, review 1690  
barban  
  *Avena* 4000  
  *Lens* 8623  
  *Triticum* 6984  
6-benzylaminopurine, *Rubus*, raspberry  
  5470  
butylate, *Zea*, maize 3081  
cadmium, *Glycine* 967  
calcium, *Glycine* 4733  
calcium chloride  
  *Malus* 3497, 3527  
  *Nicotiana* 590  
calcium peroxide, *Oryza* 10613  
captafol, *Cicer* 1605  
carbohydrates, crop plants 2824  
carbon dioxide, *Arachis* 1415  
charcoal  
  *Atropa* 1680  
  *Datura* 660  
  *Nicotiana* 1680  
chelates  
  *Atropa* 1680  
  *Nicotiana* 1680  
chloramphenicol  
  *Hordeum* 3110  
  *Nicotiana* 10792  
chlorate  
  *Hordeum* 7104  
  *Pisum* 4749  
chlorflurecol, *Oryza* 8176  
chlormequat  
  *Aegilops* 5811  
  *Agropyron* 5811  
  *Lycopersicon* 9277  
  *Oryza* 8197  
  *Secale* 5811  
  *Secale* × *Triticum*, triticaie 5811  
  *Triticum* 4871, 5811  
chlorothalonil  
  *Lycopersicon* 7717  
  *Vicia*, broad bean 6697  
*Cladosporium* toxin, *Lycopersicon* 919  
*Cochliobolus* toxin, *Zea*, maize 283, 285,  
  1976, 2008, 2825, 3077, 4038, 8061,  
  9566, 9573, 9591, 10501  
colchicine, *Hordeum* 8104

Chemicals, general effects *contd.*

- copper  
  *Agrostis* 2184, 7240, 9726, 9727  
  *Deschampsia* 4246  
o-coumaric acid, *Triticum* 8745  
cyanazine  
  *Brassica* 1392  
  *Brassica*, rape 1393, 1406  
cycloheximide  
  *Datura* 8381  
  *Hordeum* 3110  
  *Zea*, maize 246  
cytokinins, *Phaseolus* 4684  
2,4-D  
  *Acer* 8471  
  *Lotus* 6275  
  *Lycopersicon* 2648  
  *Secale* × *Triticum*, triticaie 6999  
dalapon, *Solanum*, potato 4357  
daminozide  
  *Malus* 2478, 8387  
  *Prunus*, cherry 5441  
2,4-DB, *Glycine* 6753  
3,4-dehydroproline, *Lycopersicon* 910  
N,N'-diacetylchitobiose, *Solanum*, potato  
  1321  
diazinon, *Zea*, maize 8054  
dicamba, *Triticum* 2984  
1,2-dichloropropane, *Zea*, maize 1921  
1,3-dichloropropene, *Zea*, maize 1921  
diclofop-methyl, *Lens* 8623  
diethyl sulphate, *Fragaria* 9144  
difenzoquat  
  *Lens* 8623  
  *Triticum* 207, 2983, 2984, 6984  
dimethyl sulphate, *Fragaria* 9144  
disulfoton, *Solanum*, potato 8289  
diuron, *Triticum* 200  
DMSO  
  *Atropa* 6848  
  *Nicotiana* 6848  
  *Petunia* 6848  
*Drechslera* toxin, *Saccharum* 5322  
*Echinochloa* extract, *Oryza* 1212  
EPTC, *Zea*, maize 3079  
ethanol, *Lycopersicon* 5629  
ethephon  
  *Allium*, onion 2601  
  *Beta*, sugar beet 2343  
  *Lycopersicon* 5624, 5629, 7707  
  *Malus* 2478  
  *Nicotiana* 7447  
  *Oryza* 9671  
  *Secale* 1913, 4935, 5975, 5976  
  *Triticum* 5877  
  *Vigna*, cowpea 1637  
ethionine, *Medicago* 6246, 10663  
ethyl methanesulphonate  
  *Cajanus* 990  
  *Kochia* 478  
  *Triticum* 166  
  *Vicia*, vetch 466, 6270  
ethylene dibromide, *Glycine* 7777  
ethyleneimine  
  *Fragaria* 9144  
  *Gossypium* 533  
*Festuca* extract  
  *Lotus* 9737  
  *Trifolium*, red clover 9737  
fluoride, hydrogen, *Larix* 3648  
p-fluorophenylalanine, *Nicotiana* 8337,  
  10793  
fungal toxins, crop plants, review 1690  
fungicides, crop plants 71  
*Fusarium* toxin, *Solanum*, potato 4354  
GA  
  *Avena* 227  
  *Beta*, sugar beet 2343, 3390, 10767  
  *Brassica*, swede 5568  
  *Fragaria* 1478  
  *Hordeum* 8850, 10542  
  *Lycopersicon* 9277  
  *Malus* 2477  
  *Oryza* 1215, 2139, 8176  
  *Parthenium* 5409  
  *Pyrus* 3539  
  *Sorghum* 2086, 4161  
  *Triticum* 1758, 4871, 4903, 7934,  
    9471, 10277, 10355  
  *Vitis* 8443  
  *Zea*, maize 1986  
galactosamine, *Solanum*, potato 6330

Chemicals, general effects *contd.*

- glycerol  
  *Atropa* 6848  
  *Nicotiana* 6848  
  *Petunia* 6848  
glycine hydroxamate, *Nicotiana* 8345  
glycoprotein  
  crop plants 2824  
  *Glycine* 1596  
  *Lycopersicon* 9281  
glyphosate  
  *Gossypium* 3345  
  *Medicago* 3275  
glyphosine, *Saccharum* 4403  
gossypol, *Gossypium* 3373  
growth regulators  
  *Beta*, sugar beet 2343  
  *Lycopersicon* 3711  
helminthosporoside, *Saccharum* 9025,  
  9839  
herbicides  
  *Chenopodium* 6200  
  *Fragaria* 7596  
  *Solanum*, potato 513  
  *Triticum* 7967, 7968  
  *Zea*, maize 8054  
hydrochloric acid, *Beta*, sugar beet 8326  
hydrogen sulphide, *Oryza* 10615  
hydroxycarvacryl trimethylammonium  
  chloride, *Zea*, maize 7043  
*Hypoxylon* toxin, *Populus* 3627, 9180  
IAA, *Nicotiana* 7444  
imazalil, *Triticum* 5887  
insecticides  
  *Gossypium* 7394  
  *Zea*, maize 8054  
IPA, *Zea*, maize 7043  
iron  
  *Cynodon* 8942  
  *Nicotiana* 1377  
  *Oryza* 1632, 5098, 8170  
isonicotinic acid hydrazide, *Nicotiana*  
  4432  
kanamycin  
  *Medicago* 7817  
  *Nicotiana* 7817, 9039  
kinetin  
  *Beta*, sugar beet 10767  
  *Nicotiana* 7444  
  *Ricinus* 2405  
  *Secale* × *Triticum*, triticaie 6999  
lead  
  *Agrostis* 2184, 9726, 9727  
  *Festuca* 2184  
*Leptosphaeria* toxin, *Brassica*, rape 5577  
lindane, *Vigna*, cowpea 3740  
*Lycopersicon* extract, *Lycopersicon* 3711  
lysine  
  *Medicago* 10663  
  *Zea*, maize 8036, 9577, 10439  
magnesium  
  *Gossypium* 3361  
  *Vitis* 5502  
mancozeb  
  *Solanum*, potato 10238  
  *Vicia*, broad bean 6699  
  *Zea*, maize 10238  
manganese  
  *Glycine* 6776, 10251, 11162  
  *Triticum* 10251  
  *Gossypium* 9818  
  *Panicum* 6110  
  *Triticum* 10251  
mannitol, *Lycopersicon* 910  
mannosamine, *Solanum*, potato 6330  
MCPA, *Triticum* 2984  
methionine, *Medicago* 6246  
methomyl, *Zea*, maize 281, 8061, 9591  
methyl bromide, *Persea* 7578  
methyl isothiocyanate, *Solanum*, potato  
  8289  
5-methyltryptophan  
  *Daucus* 10045  
  *Oryza* 2147  
metribuzin  
  *Brassica* 1392  
  *Brassica*, rape 1393, 1406  
  *Glycine* 6753  
  *Lens* 8623  
  *Lycopersicon* 1559, 2652  
  *Solanum*, potato 7344  
MH, *Allium*, onion 7814  
molinate, *Oryza* 3198



Chemicals, general effects *contd.*

- monilicolin A, crop plants 2824  
 monocrotophos, *Vigna*, cowpea 3740  
 morphactins, *Ricinus* 2405  
*Mycosphaerella* toxin, *Zea*, maize 3077, 8061, 9591  
 NAA  
   *Arachis* 650  
   *Oryza* 8176  
   *Sorghum* 2086  
   *Zea*, maize 7043  
 1,8-naphthalic anhydride, *Avena* 4000  
 nitrite, *Triticum* 8745  
 nitrofen, *Triticum* 1105  
 nitrogen, *Nicotiana* 7447, 10794  
 nitrogen dioxide  
   *Festuca* 5160  
   grasses 5160  
   *Pinus* 4578  
   *Platanus* 4578  
   *Poa* 5160  
*N*-nitroso-*N*-ethylurea, *Acca* 764, 1486  
*N*-nitroso-*N*-methylurea  
   *Acca* 764, 1486  
   *Pyrus* 9110  
   *Solanum*, potato 8972  
 nucleic acids, *Hordeum* 7093  
 oryzalin  
   *Avena* 2862  
   *Zea*, maize 2862  
 oxadiazon, *Poa* 3215  
 oxalic acid, *Helianthus*, sunflower 6453  
 oxamyl, *Solanum*, potato 5263  
 oxygen  
   *Nicotiana* 10794  
   *Oryza* 10613  
 ozone  
   *Festuca* 5160  
   grasses 5160  
   *Larix* 3648  
   *Lycopersicon* 4653  
   *Nicotiana* 7459, 7460  
   *Phaseolus* 3737  
   *Pinus* 2579, 2580, 2581, 3643, 4578, 10959  
   *Platanus* 4578  
   *Poa* 5160  
   *Spinacia* 2619  
 patulin, *Triticum* 10359  
*Periconia* toxin, *Sorghum* 5085, 9651  
 phenol, *Oryza* 2130  
 phorate  
   *Lolium* 6223  
   *Trifolium*, red clover 6259  
*Phytophthora* extract, *Capsicum* 9094  
 picloram, *Nicotiana* 4433  
*Populus* extract, *Cryptodiaporthe* 3628  
 potassium  
   *Beta*, sugar beet 6388  
   *Vitis* 5502  
 potassium dihydrogen phosphate, *Musa* 2532  
 proline, *Lycopersicon* 910, 9272  
 prometryne  
   *Populus* 9183  
   *Zea*, maize 3080  
 propanil, *Echinochloa* 2847  
 propazine, *Gossypium* 9821  
*Pseudomonas* polysaccharide, *Phaseolus* 5661  
 rhizobitoxine, *Glycine* 5694  
*Schizaphis* toxin, *Triticum* 4917  
 simazine, *Populus* 9183  
 sodium  
   *Beta*, sugar beet 6388  
   *Citrus* 10886  
 sodium chloride  
   *Beta*, sugar beet 6387  
   *Datura* 4790  
   *Lycopersicon* 910, 9272  
   *Nicotiana* 9038  
   *Oryza* 7192, 8913  
   *Pisum* 7787  
   *Saccharum* 9023  
   *Vitis* 9166  
 sodium hypochlorite, *Parthenium* 5409  
 sodium nitrophenol, *Oryza* 8176  
 streptomycin  
   *Medicago* 7817  
   *Nicotiana* 1016, 7817, 8331, 8337, 10789  
   *Rhizobium* 947  
   *Zea*, maize 7053

Chemicals, general effects *contd.*

- sucrose, *Nicotiana* 8348  
 sulphur, *Cucumis*, melon 8526, 8527  
 sulphur dioxide  
   *Agrostis* 7226  
   *Dactylis* 8935  
   *Festuca* 5160, 7226, 8935  
   grasses 5160  
   *Holcus* 8935  
   *Larix* 3648  
   *Lolium* 7226, 8935  
   *Phleum* 8935  
   *Pinus* 811, 812, 3642, 4578, 10959  
   *Platanus* 4578  
   *Poa* 5160, 7226  
   *Populus* 10028  
 surfactants, *Triticum* 1870  
 syringic acid, *Triticum* 8745  
 TCA, *Solanum*, potato 4357  
 tentoxin, *Nicotiana* 5349, 8332  
*Theobroma* extract, *Marasmius* 629  
 threonine  
   *Medicago* 10663  
   *Zea*, maize 8036, 9577, 10439  
 TIBA  
   *Vicia*, broad bean 7734  
   *Zea*, maize 7043  
 triadimefon, *Triticum* 9437  
 triazine, *Brassica*, rape 1406  
 triazines, *Nicotiana* - *Solanum* 7441  
 2,4,5-trichlorophenoxypropionic acid,  
   *Malus* 2478  
 trifluralin  
   *Avena* 2862  
   *Zea*, maize 2862  
*Triticum* extract, *Triticum* 8745  
 urea, *Solanum*, potato 2270  
 zinc  
   *Agrostis* 2184, 9726, 9727  
   *Anthoxanthum* 4246  
   *Festuca* 2184  
   *Glycine* 9315, 9316  
   *Zea*, maize 8044  
 Chemicals, mutagenic effects  
 acriflavine  
   *Arachis* 5392  
   *Beta*, sugar beet 2347  
 alkylating agents  
   *Gossypium* 2300  
   *Hordeum* 9602  
 2-aminopurine  
   *Lotus* 472  
   *Nicotiana* 7442  
 ampicillin, *Phaseolus* 3735  
 azide, sodium  
   *Brassica*, oil crops 633  
   *Hordeum* 2031, 2041, 3101, 5030, 7096, 8116, 8839, 10532  
   *Oryza* 4199, 5124, 6137, 10598  
 1,4-bisdiazoacetylbutane  
   *Allium*, onion 8510  
   *Gossypium* 546, 7383  
   *Helianthus*, sunflower 9883  
   *Hordeum* 7094  
   *Lupinus* 9759  
   *Secale* × *Triticum*, triticales 2995  
   *Solanum*, potato 8979  
   *Triticum* 4866, 8734  
 boron, *Hordeum* 7092  
 bromine, *Triticum* 8737  
 5-bromodeoxyuridine  
   *Hordeum* 8098  
   *Nicotiana* 1016  
 caffeine  
   *Hordeum* 10535  
   *Solanum*, egg plant 11069  
 chloramphenicol, *Hordeum* 10535  
 chloroethylcyanoethylethylamine, *Triticum* 9453  
 chloroethylcyanoethylmethylamine,  
   *Triticum* 9453  
 chromium, *Triticum* 8737  
 colchicine  
   *Fragaria* 3601  
   *Gossypium* 3359, 7374  
   *Sorghum* 5076  
 copper, *Triticum* 8737  
 2,4-D, *Hordeum* 8841  
 diethyl sulphate  
   *Amaranthus* 1564  
   *Glycine* 5685  
   *Gossypium* 544  
   *Heracleum* 9767

Chemicals, mutagenic effects *contd.*  
 diethyl sulphate *contd.*

- Hordeum* 5028, 8106  
*Nicotiana* 6404  
*Oryza* 1215, 1230, 4198  
*Pisum* 981, 1603, 6782, 11180  
*Secale* 235  
*Secale* × *Triticum*, triticales 2995  
*Solanum*, egg plant 11069  
*Sorghum* 9644  
*Triticum* 149  
*Zea*, maize 8807  
 3,5-diiodotyrosine, *Festuca* × *Lolium* 1247  
 diisopropyl benzyl phosphorothioate,  
   *Hordeum* 2029, 2030  
 dimethyl sulphate  
   *Allium*, onion 8510  
   *Beta*, sugar beet 578  
   *Capsicum* 7521, 7522  
   *Dactylis* 4254  
   *Fagopyrum* 408  
   *Glycine* 966, 5685  
   *Gossypium* 544, 7383  
   *Helianthus*, sunflower 9883  
   *Heracleum* 9767  
   *Lupinus* 9759  
   *Lycopersicon* 7705  
   *Phaseolus* 1573, 6710  
   *Pisum* 11180  
   *Secale* × *Triticum*, triticales 2995  
   *Triticum* 169, 206, 6922, 10311, 10312  
 dimethyl sulphoxide  
   *Oryza* 4198  
   *Vigna*, minor species 4703  
 2,4-dinitrophenol, *Hordeum* 10535  
 endosulfan, *Hordeum* 2029, 2030  
 ethidium bromide, *Zea*, maize 9565  
 8-ethoxycaffeine, *Lotus* 472  
 ethyl methanesulphonate  
   *Agropyron* × *Triticum* 5854  
   *Amaranthus* 1564  
   *Arachis* 1414, 5392  
   *Avena* 1901, 10384, 10409  
   *Beta*, sugar beet 2347, 6380  
   *Brassica*, oil crops 633  
   *Brassica*, rape 3462  
   *Cajanus* 1608  
   *Capsicum* 1417  
   *Cuphea* 4490, 4491  
   *Daucus* 838  
   *Elymus* 10647  
   *Fagopyrum* 408  
   *Fragaria* 3601  
   *Glycine* 6755, 11140  
   *Heracleum* 9767  
   *Hordeum* 1676, 2035, 3116, 5031, 7832, 8091, 8098, 8838, 9602  
   *Lathyrus* 1295  
   *Lotus* 472  
   *Lycopersicon* 903  
   *Medicago* 4282, 6246, 10663  
   *Nicotiana* 610, 1016, 7442, 8337, 9035, 9042  
   *Oryza* 1197, 1211, 1215, 1216, 1217, 1230, 2123, 2142, 2145, 2833, 2846, 5121, 5131, 6149, 7186, 10598  
   *Phaseolus* 3735, 6709, 9292, 9294  
   *Pisum* 1676, 2742, 3776, 4749, 11180  
   *Psophocarpus* 6796  
   *Puccinia* 7959  
   *Saccharum* 6374  
   *Secale* 235  
   *Solanum*, egg plant 11069  
   *Sorghum* 2089  
   *Triticum* 128, 1068, 1089, 1752, 1777, 1812, 2885, 2917, 2954, 5859, 5860, 5879, 6890, 8735  
   *Vicia*, broad bean 935  
   *Vigna*, cowpea 10114  
   *Vigna*, minor species 2708, 4703, 6742, 10122, 11116  
   *Zea*, maize 2833, 6007, 6010, 6063, 7044, 7067, 8807, 10450  
 ethylene oxide  
   *Glycine* 5685  
   *Helianthus*, sunflower 9883  
 ethylenediaminetetraacetic acid, *Vicia*, broad bean 936  
 ethyleneimine  
   *Allium*, onion 8510, 9234  
   *Capsicum* 7521



**Chemicals, mutagenic effects contd.**

## ethyleneimine contd.

- Cucumis*, cucumber 886, 8535, 11025, 11028  
*Fagopyrum* 408  
*Glycine* 966, 5685, 8599, 10137  
*Gossypium* 544, 1341, 7383, 10708  
*Helianthus*, sunflower 9883  
*Heracleum* 9767  
*Hordeum* 1007, 1147, 1165, 1676, 10544  
*Lupinus* 8958, 9759  
*Lycopersicon* 7705  
*Nicotiana* 1016  
*Oryza* 8167, 10607  
*Panicum* 8873  
*Phaseolus* 1573, 6710  
*Pisum* 981, 1676, 10174, 11180  
*Secale* × *Triticum*, triticales 2995  
*Triticum* 149, 169, 1068, 6922, 7927, 8734, 10312  
*Vicia*, broad bean 936  
*Vigna*, minor species 3744  
fenitrothion, *Hordeum* 2029, 2030  
fenthion, *Hordeum* 2029, 2030  
furadentin, *Phaseolus* 3735  
furylfuramide  
*Glycine* 7847  
*Zea*, maize 7847  
GA  
*Hordeum* 3101  
*Lycopersicon* 900  
hycanthone, *Glycine* 6755  
hydrazine, *Sorghum* 4138  
hydroxylamine  
*Nicotiana* 7442  
*Triticum* 1812  
*Vigna*, minor species 3744, 6742  
hydroxyurea, *Lotus* 472  
IAA, *Hordeum* 3101  
iodine, *Triticum* 8737  
isocinchomeric acid, *Triticum* 171  
kinetin, *Hordeum* 8096  
K30, *Triticum* 169  
lithium, *Hordeum* 7092  
magnesium, *Triticum* 8737  
manganese, *Triticum* 8737  
*Mangifera* extract, *Zea*, maize 1957  
methyl ethanesulphonate  
*Lathyrus* 8961, 8962  
*Phaseolus* 3735  
methyl methanesulphonate  
*Glycine* 6755  
*Nicotiana* 610  
*Phaseolus* 3735  
*N*-methyl-*N*-nitro-*N*-nitrosoguanidine  
*Glycine* 6755  
*Lablab* 989  
*Solanum*, potato 5252  
*Zea*, maize 7044  
*N*-methyl-*N*'-nitroso-*N*-nitrosoguanidine,  
*Rhizobium* 9751  
*N*-methyl-*N*-nitroso-*N*-nitrosoguanidine,  
*Oryza* 2125  
miscellaneous  
*Alnus* 9174  
*Avena* 4929  
*Capsicum* 1521  
*Fagopyrum* 9716  
*Fraxinus* 9174  
*Helianthus*, sunflower 9890  
*Hordeum* 1148  
*Lycopersicon* 1521  
*Malus* 2471  
*Morus* 9973  
*Phaseolus* 11103  
*Picea* 9174  
*Pinus* 9174  
*Pisum* 11178  
*Quercus* 9174  
*Tilia* 9174  
miscellaneous, technique 2031  
mitomycin C, *Lathyrus* 1295  
molybdenum, *Triticum* 8737  
neomycin, *Phaseolus* 3735  
niacin, *Triticum* 171, 195  
nicotinamide, *Triticum* 171  
*N*-nitroso-*N*-dimethylurea  
*Allium*, onion 8510  
*Gossypium* 546  
*Hordeum* 299, 10537  
*Solanum*, potato 8979  
*Triticum* 4866, 10312

**Chemicals, mutagenic effects contd.***N*-nitroso-*N*-ethylurea

- Acca* 10216  
*Allium*, onion 8510, 9234  
*Capsicum* 7521  
*Dactylis* 4254  
*Fagopyrum* 408  
*Glycine* 966, 5685, 11138  
*Gossypium* 7383  
*Heracleum* 9767  
*Hordeum* 5029, 10537  
*Lupinus* 9759  
*Lycopersicon* 7705  
*Rosa* 10835  
*Secale* 8789  
*Secale* × *Triticum*, triticales 2995, 7977  
*Triticum* 6922, 7926, 7927, 9453, 10311, 10312  
*N*-nitroso-*N*-methylbiuret  
*Hordeum* 10537  
*Triticum* 9453  
*N*-nitroso-*N*-methyl-*N*-nitrosoguanidine,  
*Triticum* 4866  
*N*-nitroso-*N*-methylurea  
*Acca* 10216  
*Beta*, sugar beet 6380  
*Brassica*, rape 3462  
*Camellia* 9866  
*Capsicum* 9089  
*Corylus* 3619  
*Fagopyrum* 408  
*Glycine* 3758, 5685  
*Gossypium* 544, 1341, 7383, 10708  
*Heracleum* 9767  
*Hordeum* 296, 314, 2033, 2034, 2035, 4089, 5029, 7094, 8096, 10534, 10537  
*Lablab* 989  
*Lens* 4759, 10184  
*Lupinus* 8958  
*Oryza* 1230, 5131, 6149, 7186  
*Populus* 7630  
*Secale* × *Triticum*, triticales 7977  
*Triticum* 169, 206, 1068, 1812, 1841, 4866, 4879, 6922, 7920, 8734, 9453, 10302, 10311  
*Vigna*, minor species 6742, 11116  
*Zea*, maize 8807, 10245  
*N*-nitroso-*N*-methylurethane  
*Hordeum* 6864  
*Pisum* 6864  
*Solanum*, potato 5252  
potassium, *Triticum* 8737  
proflavin, *Hordeum* 8097  
*Salmonella* azide metabolite, *Hordeum* 8842  
streptomycin, *Beta*, sugar beet 2347  
zinc, *Triticum* 8737  
**Chenopodium**  
chemicals, as plant constituents, betacyanins 6200  
chemicals, general effects, herbicides 6200  
genetic resources 6855  
germplasm banks, Peru 6855  
growth period 6200  
habit 6200  
hybridization, interspecific 6197  
inflorescence, shape 6200  
leaf, shape 6200  
polyploidy 6200  
sterility, male, cytoplasmic 6197  
taxonomy 6200  
Cherry (see *Prunus*, cherry)  
Chestnut (see *Castanea*)  
Chiasma (see Crossing over)  
Chiasmata, *Gossypium* 6347  
Chickpea (see *Cicer*)  
Chicory (see *Cichorium*, chicory)  
Chilli (see *Capsicum*)  
Chilling requirement  
*Astragalus* 4317  
*Carya* 1494  
*Festuca* 6226  
*Prunus*, almond × *Prunus*, peach 8455  
*Prunus*, peach 6510  
*Prunus*, plum 669  
*Rubus*, raspberry 10899  
**Chilo**  
*Oryza* 1238, 1239, 8155, 8208, 8674

**Chilo contd.**

- Sorghum* 2794, 4156, 4172, 4175, 4176, 4179, 4180, 4181, 4183, 4184, 6132, 6133, 7174, 8144, 8145  
*Zea*, maize 7073  
**Chilo, technique, Saccharum** 2338  
**Chimeras** 4788  
*Camellia* 1677  
*Citrus* 1677, 6517  
*Fragaria* 6534  
*Glycine* 4715, 4716, 8600, 8602  
*Lycopersicon* 916, 3708, 11052  
*Malus* 2470, 7549, 7550  
*Nicotiana* 8331  
*Solanum*, potato 2262, 4788, 9777  
*Stenotaphrum* 1254  
*Triticum* 4857, 8736  
*Vitis* 8439  
*Zea*, maize 6036, 7034, 10434, 10466  
**Chimeras, technique, crop plants** 1625  
**Chinese cabbage** (see *Brassica*, Chinese cabbage)  
**Chives** (see *Allium*, chives)  
**Chloris**  
altitude 3213  
cold resistance 3212, 3213  
**Chloroplasts**  
*Aegilops* 8699  
*Aegilops* × *Triticum* 1767  
crop plants 64  
*Euchlaena* 9531, 10438  
*Gossypium* 547, 4380  
*Hordeum* 2044, 10536  
*Nicotiana* 2366, 2808, 5345, 7443, 8331, 9856  
review 602  
*Oryza* 8164  
*Glycine* 5122  
*Phaseolus* 3858  
*Pisum* 976, 1602, 2742, 5749  
*Populus* 7630  
*Secale* 3990  
*Secale* × *Triticum*, triticales 3990  
*Triticum* 174, 1790, 1797, 3990, 7953, 8699, 9468  
*Vitis* 778  
*Zea*, maize 249, 1985, 3858, 4017, 4033, 4992, 6011, 6034, 9531, 9568, 9569, 10438  
**Chloroplasts, number**  
*Gossypium* 2297  
*Nicotiana* 3436  
*Vicia*, broad bean 6686  
*Vicia*, vetch 6686  
**Chloroplasts, size**  
*Gossypium* 7388  
*Triticum* 1797  
**Chondrostereum, Prunus, plum** 669  
**Choristoneura, Pseudotsuga** 6596  
**Chromatids**  
*Allium*, onion 2784, 9351, 10050  
*Secale* 4939  
*Vicia*, broad bean 9287, 11081  
*Zea*, maize 4969, 8808  
**Chromatids, technique**  
crop plants, review 10096  
*Vicia*, broad bean, review 10096  
*Zea*, maize 8033  
**Chromatin** (see Chemicals, as plant constituents; Nucleus)  
**Chromosome transfer**  
*Petroselinum* 4813  
*Petroselinum* - *Triticum* 4813  
*Petroselinum* - *Zea*, maize 4813  
*Triticum* 4813  
*Triticum* - *Petroselinum* 4813  
*Triticum* - *Zea*, maize 4813  
*Zea*, maize - *Petroselinum* 4813  
**Chromosome translocation** 3821, 5739, 9349, 9388  
*Aegilops* × *Triticum* 126  
*Agropyron* × *Triticum* 126, 1776, 4850, 10307  
*Allium*, onion 2785  
*Avena* 4823  
*Beta*, sugar beet 7421, 9028  
*Capsicum* 58, 10842  
*Citrullus* 2467  
crop plants 126  
*Crotalaria* 10745  
*Glycine* 58, 7766  
*Gossypium* 5290, 6347, 6348



**Chromosome translocation contd.**

- Hordeum* 1031, 8103, 8108, 8844, 9603, 10198, 10229, 10539  
*Lens* 1607  
*Lycopersicon* 58, 923, 2639, 5620  
*Nicotiana* 10789  
*Oryza* 2126, 8167, 10599  
*Pennisetum* 2065, 2066, 2067, 3135  
*Phaseolus* 11097, 11099  
*Secale* 2804  
*Secale* × *Triticum* 126, 132, 1886, 5864  
*Secale* × *Triticum*, triticales 1787, 7979, 7980, 7981  
*Tripsacum* × *Zea*, maize 1951  
*Triticum* 108, 131, 132, 183, 1776, 1886, 2804, 4856, 5864, 7969, 9390, 10263  
*Vicia*, broad bean 10097, 10229, 11081  
*Zea*, maize 58, 1943, 1947, 1948, 1956, 1958, 1960, 3035, 3038, 4013, 4016, 4960, 4963, 4964, 4980, 4983, 5990, 5993, 6013, 6014, 6018, 6019, 7038, 8023, 8035, 8039, 9535, 9552, 10454, 10455, 10456, 10457, 10460

**Chromosomes, aberrations**

- Agropyron* × *Triticum* 2895  
*Allium*, garlic 5562, 6831  
*Allium*, minor species 10992, 10993  
*Allium*, onion 19, 824, 2785, 3655, 5740, 5741, 7814, 10050  
*Anthyllis* 4316  
*Arabidopsis* - *Brassica* 3671  
*Beta*, sugar beet 575, 5329, 10766  
*Camellia* 1014, 2387, 2388, 9867, 10216  
*Capsicum* 824, 1418, 1419, 5402  
*Citrus*, lemon 1014, 3576  
*Citrus*, mandarin 1014  
*Citrus*, orange 1014  
*Corchorus* 7399  
crop plants 1009, 10230  
*Crotalaria* 10745  
*Cydonia* 697  
*Euchlaena* 10513  
*Glycine* 966, 2723, 4732, 9313  
*Gossypium* 3356  
*Hordeum* 301, 1626, 2026, 2029, 2030, 2036, 3882, 4090, 7097, 8102, 8105, 8108, 8845, 8846, 9603, 9604, 10535, 10538, 10540, 10541  
*Hordeum* × *Secale* 8099  
*Lens* 1607, 4759  
*Lespedeza* 9758  
*Linum* 9013  
*Lycopersicon* 824, 904, 923, 2639  
*Nicotiana* 3426, 10783  
*Oryza* 4198, 6147, 9679  
*Papaver* 6429, 9050  
*Phaseolus* 5653, 11097  
*Pinus* 4589, 7637  
*Pisum* 6675  
*Secale* 48, 10417  
*Secale* × *Triticum* 5856  
*Secale* × *Triticum*, triticales 1108, 3985, 7977, 10395  
*Solanum*, potato 4339  
*Sorghum* 7137  
*Trigonella* 10681  
*Triticum* 136, 138, 1785, 1797, 2895, 2902, 2907, 3882, 3917, 5863, 7920, 7921, 8685, 10245  
*Vicia*, broad bean 20, 48, 1628, 2781, 8685, 10097  
*Vigna*, cowpea 6675  
*Vigna*, minor species 3744  
*Vitis* 774, 1491, 2545, 2546  
*Zea*, maize 4972, 6017, 7045, 9549, 10245, 10459

**Chromosomes, accessory**

- Aegilops* × *Triticum* 3913  
*Allium*, chives 10051, 10052  
*Alopecurus* 5154  
*Cymbopogon* 9084  
*Dactylis* 4253  
*Festuca* 7257, 7261  
*Lathyrus* 1293  
*Matricaria* 3489  
*Pennisetum* 1182, 6115  
*Phleum* 5154  
*Poa* 10627  
*Scorzonera* 931  
*Secale* × *Triticum* 10415  
*Thymus* 5716  
*Trigonella* 3298

**Chromosomes, accessory contd.**

- Vigna*, minor species 2707  
*Zea*, maize 1116, 3040, 4969, 6019  
**Chromosomes, addition and substitution**  
 9387, 9388, 9389  
*Aegilops* × *Triticum* 107, 5872, 10308  
*Agropyron* × *Triticum* 164, 1072, 2894, 3904, 4850, 8950  
*Avena* 5963, 5969  
*Beta*, sugar beet 2350, 3396, 7421  
*Brassica*, cabbage × *Brassica*, swede 5585  
*Brassica*, rape 7837  
*Brassica*, rape × *Brassica*, turnip 3303  
crop plants 126  
*Euchlaena* × *Zea*, maize 9544  
*Gossypium* 1328  
*Hordeum* 6089  
*Hordeum* × *Triticum* 5851  
*Nicotiana* 5343  
*Secale* 2804  
*Secale* × *Triticum* 132  
*Secale* × *Triticum*, triticales 215, 218, 1787, 3981, 7978  
*Tripsacum* × *Zea*, maize 9544  
*Triticum* 107, 132, 133, 164, 1781, 1782, 1886, 2804, 3001, 3904, 3966, 4844, 5872, 5899, 6923, 6924, 7852, 7892, 7907, 7915, 7969, 7970, 7972, 9387, 9389, 9390, 10265, 10336, 10531  
*Zea*, maize 9544, 10454

**Chromosomes, addition and substitution, technique, *Triticum* 7918****Chromosomes, breakage**

- Allium*, garlic 5562  
*Zea*, maize 4025

**Chromosomes, elimination 1629**

- Agropyron* × *Hordeum* 2025  
*Arachis* 7507  
*Brassica*, kale × *Raphanus* 10987  
*Glycine* - *Nicotiana* 1373  
*Hordeum* 2027, 5805, 8094, 8843, 8847, 9383  
*Hordeum* × *Triticum* 5805, 6924  
*Pennisetum* 3135, 8129  
*Secale* × *Triticum* 8777, 9501  
*Secale* × *Triticum*, triticales 219, 1882, 1885, 2997, 7976  
*Triticum* × *Hordeum* 6924

**Chromosomes, fragments (see Aneuploidy)****Chromosomes, maps (see Linkage)****Chromosomes, morphology 8665**

- Abies* 5531  
*Aegilops* 5938, 8738  
*Agropyron* 125  
*Agropyron* × *Triticum* 125  
*Allium*, minor species 3658, 4612  
*Allium*, onion 8508, 10049  
*Aloe* 4497  
*Anthyllis* 5240  
*Artemisia* 3488  
*Avena* 4928  
*Beta*, sugar beet 6381, 9028  
*Camellia* 9868  
*Cicer* 11185  
*Cocos* 35  
*Commelina* 6471  
*Corchorus* 7400  
*Cryptomeria* 8492  
*Cucumis* 11038  
*Cucumis*, melon 2621  
*Datura* 9095  
*Eleusine* 328  
*Elymus* 125  
*Elymus* × *Triticum* 125  
*Euchlaena* 1129, 7065, 9598, 10513  
*Festuca* 4264  
forest trees 8458  
*Furcraea* 3382  
*Glycine* 3755, 4719  
*Gossypium* 7371  
grasses 4239  
*Helianthus*, Jerusalem artichoke 2599  
*Helianthus*, sunflower 2413  
*Hordeum* 2037, 9450, 9603, 10539  
*Hordeum* × *Secale* 4087  
*Hordeum* × *Triticum* 9450  
*Humulus* 2397  
*Larix* 5531  
*Lathyrus* 1293  
*Lolium* 8239  
*Luzula* 9352  
*Lycopersicon* 2259

**Chromosomes, morphology contd.**

- Manihot* 3403  
*Matricaria* 5406  
*Oryza* 6147, 10594  
*Papaver* 1389  
*Phaseolus* 945  
*Picea* 5531  
*Pinus* 1510, 5531, 6586  
*Pisum* 11177  
*Pseudotsuga* 3649  
*Psophocarpus* 1609  
*Ricinus* 634  
*Scorzonera* 931  
*Secale* 4003, 7996, 7999, 8787, 9513, 10049  
*Secale* × *Triticum* 4003  
*Secale* × *Triticum*, triticales 219, 220, 6993  
*Solanum* 11067  
*Solanum*, potato 2259, 4338  
*Thymus* 5716  
*Triticum* 125, 134, 137, 8738, 9450  
*Vicia*, broad bean 2675, 9287, 10097, 11080  
*Vicia*, vetch 5233, 6269  
*Vigna*, minor species 945, 2707, 9306  
*Zea*, maize 1116, 1125, 1129, 4026, 4960, 6015, 7065, 10429, 10458  
*Zingiber* 33

**Chromosomes, morphology, technique 210, 2783**

- Aegilops* 210  
*Allium*, onion 2782, 3823  
*Beta*, sugar beet 9027  
crop plants 16, 10204  
*Cryptomeria* 8493  
*Cycas* 791  
*Ginkgo* 791  
*Gossypium* 5289  
*Hordeum* 1703, 1704  
*Pinus* 791  
*Secale* 1703, 1704, 3016  
*Secale* × *Triticum*, triticales 1703, 5945  
*Trigonella* 10681  
*Tripsacum* × *Zea*, maize 10446  
*Triticum* 1703, 1704  
*Vicia*, broad bean 1703, 2782, 4785  
*Zea*, maize 1703, 6016, 9551, 9552, 10453

**Chromosomes, number 5745, 5746**

- Acer* 7848  
*Agropyron* 3230  
*Albizia* 10228  
*Allium*, minor species 3861, 4612  
*Amaranthus* 930  
*Amelanchier* 766  
*Anthyllis* 4316, 5240  
*Arabidopsis* - *Brassica* 3671  
*Arachis* 2795  
*Artemisia* 3488, 3861  
*Astragalus* 3861, 7848, 9744  
*Brassica* 1532, 3824, 8514  
*Brassica*, cabbage 5566  
*Brassica*, cabbage × *Brassica*, kale × *Raphanus* 3678  
*Brassica*, rape 3466  
*Brassica* × *Raphanus* 1531  
*Brassica*, swede × *Brassica*, turnip 481  
*Canavalia* 432  
*Cassia* 432  
*Celosia* 930  
*Centrosema* 432  
*Cissus* 2547  
*Citrus* 10228  
*Commelina* 6471  
*Commelina* 6471  
*Coronilla* 9744  
*Crataegus* 3542  
crop plants 1679, 3861  
*Crotalaria* 432  
review 8320  
*Cryptomeria* 8492  
*Cucumis* 11038  
*Cucumis*, melon 2621  
*Curcuma* 34  
*Cymbopogon* 2444  
*Cynodon* 421, 5173  
*Desmodium* 432  
*Digitalis* 7848  
*Euchlaena* × *Zea*, maize 244  
*Festuca* 3226, 5195, 9718  
*Festuca* × *Lolium* 1247  
forest trees 8458



**Chromosomes, number contd.**

- Fragaria* 8431
- Furcraea* 3382
- Glycine* 957
- Glycyrrhiza* 9744
- grasses 3861, 4239, 10228
- Guillemia* 4798
- Hordeum* 8071
- Hordeum* × *Secale* × *Triticum* 1768, 1769
- Hordeum* × *Triticum* 3900, 3905, 7865
- Juniperus* 6597
- Lathyrus* 9744
- Leguminosae 432
- Lotus* 9718, 9744, 10678
- Lupinus* 8268
- Lycopersicon* - *Solanum*, potato 11042
- Manihot* 3402, 3403
- Matricaria* 5406
- Medicago* 996, 3861, 9744
- Melilotus* 9744
- Momordica* 9256
- Morus* 3577, 3578
- Myrothamnus* 1391
- Nicotiana* 595, 606
- Ocimum* 10228
- Onobrychis* 7848
- Origanum* 3861
- Oryza* 9666
- Panax* 4496
- Panicum* 6111, 9624
- Papaver* 7848
- Paspalum* 6228
- Pennisetum* 2070
- Phleum* 9718
- Poa* 3214
- Populus* 7848
- Prunus*, plum 10228
- Pseudotsuga* 3649
- Psophocarpus* 6821, 8634
- Rheum* 7848
- Rorippa* 3861
- Rosaceae 2786
- Rumex* 7848
- Salix* 5528
- Salvia* 7848
- Satureja* 7848
- Scorzonera* 931
- Secale* 3015
- Secale* × *Triticum* 2900, 7995, 8777, 9501
- Secale* × *Triticum*, triticales 3983, 6993, 8776, 9502
- Sinapis* 3824
- Sisymbrium* 3824
- Solanum* 765, 2457, 7848
- Sorghastrum* 6238
- Stylosanthes* 4314
- Thymus* 1610, 3861, 5716
- Trifolium* 3861, 4292, 10669
- Trifolium*, minor species 1286, 9718
- Trifolium*, minor species × *Trifolium*, Alsike clover 6265
- Vaccinium* 3861
- Vicia*, vetch 3861, 6269, 7848
- Vitis* 2547
- Zizyphus* 10000

**Chromosomes, number, technique, *Triticum* 7914****Chromosomes, pairing (see Meiosis)****Chromosomes, substitution (see**

Chromosomes, addition and substitution)

***Chrysanthemum***

- genetic resources 2461
- history and evolution 7850
- mixtures of crops or genotypes 7850
- pollen 2461
- polyploidy 7850

***Chrysomela*, *Populus* 5520, 10029*****Cicer***

- Ascochyta* 1606, 2796, 3791
- breeding 4670, 4673
  - India 985, 1646
  - Sudan 4665
- breeding, technique 3782, 3783, 3787
- cell division 11185
- chemicals, as nutrients, nitrogen 4678
- chemicals, as plant constituents
  - aminoacids 3789
  - chlorophyll 2748
  - fructose 10183
  - glucose 10183
  - malic acid 987

***Cicer* contd.**

chemicals, as plant constituents contd.

- methionine 10182
- nitrogen 6792
- protein 3789, 6792, 7792, 8952
- raffinose 10183
- starch 6792
- sucrose 10183
- sugar 6792, 10183
- sulphur 10182
- tryptophan 3789, 10182
- chemicals, fertility and sex, effects, malic acid 987
- chemicals, general effects, captafol 1605
- chromosomes, morphology 11185
- cold resistance 3791, 4670, 4671
- combining ability 984, 3788, 4757, 5709
  - growth period 10181
  - height 10181
  - yield components 10181
- Corticium* 2753, 4667
  - density of stand 3784
  - development and growth 5710, 11186
  - diallel analysis 2750, 3788, 4757, 5709
  - flower, colour 3786, 4756
  - flower, number 2747
  - fruit, colour 2747
- Fusarium* 986, 2753, 3793, 4667
  - physiological races 2796
    - India 2752, 3792
- Fusarium*, technique 11075
- γ rays 2748, 2749, 7792, 8622
- genetic resources 4670
- genetics
  - flower, colour 4756
  - flower, number 2747
  - fruit, colour 2747
  - leaf, colour 2747
  - seed 2747
  - seed, colour 2747, 4756
  - seed, texture 4756
  - seedlings, colour 2747
  - stem, colour 4756
- genotype × environmental interaction 1604
  - germination 1605
  - germplasm banks, India 3781
  - growth period 986, 5711, 10181
  - habit 986, 2749, 10180
  - harvest index 10182
  - heat and drought resistance 4671
  - height 2748, 2749, 10181
  - Heliothis* 2796, 3794, 6794
  - heritability 6790, 6791
  - heterosis 984, 4757
  - humidity 2750
  - internode 2748
  - leaf, colour 2747
  - leaf, shape 2748
  - leaf, size 2748
  - linkage 2747, 4756
  - Macrophomina* 2753, 4667, 7794, 10183
  - meiosis 11185
  - Meloidogyne* 986, 7795
  - multivariate analysis 4758
  - mutation, induced 985, 986, 2748, 2749, 7731, 7792, 8622
  - neutrons 986
  - nitrogen fixation 4678
  - photoperiodism 3787, 4671, 5710, 5711, 7731
  - photosynthesis 4671, 11186
  - pleiotropy 2747
  - pollen 987, 2751
  - Pythium* 11188
  - recombination 2747
  - Rhizobium* 986, 3790, 4672, 5710
    - physiological races 2796, 4678
  - Rhizoctonia* 4667
  - root, length 9765
  - salinity 4671
  - seed 2747, 3786, 10183
  - seed, colour 2747, 4667, 4756, 11188
  - seed, number 9331, 10182
  - seed, size 2746, 5708, 9331
  - seed, texture 4756
  - seed, weight 6792, 9331
  - seedlings, colour 2747
  - selection, artificial 985, 5708
  - sowing and planting date 3782, 3783, 3791
  - stability 3784, 9330, 9332
  - stem, colour 4756

***Cicer* contd.**

- sterility and fertility 987, 2750
- sterility, male 3785
- taxonomy 8952
- temperature, effect of 987, 5710, 5711, 7731
- tissue culture 2662
- varieties
  - Australia 11184
  - India 2746, 11184
- variety trials, India 9330
- vernalization 4671
- Verticillium* 6793
- viruses 986, 2796, 3795
- yield components 984, 1604, 2749, 3788, 4757, 4758, 5708, 5709, 6790, 6791, 7792, 7793, 9332, 10181

***Cichorium*, chicory**

- heritability, quality 10976
- heterosis, quality 10976
- quality 10976
- sterility and fertility 10976
- viruses 4626

***Cichorium*, chicory × *Cichorium*, endive, hybridization, interspecific 10976*****Cichorium*, endive**

- glass and plastic, cultivation under 11004
- variety trials, USSR 10066, 11004
- viruses 4626

***Cichorium*, endive × *Cichorium*, chicory, hybridization, interspecific 10976*****Cider*, quality (see Quality, of cider)*****Cissus*, chromosomes, number 2547*****Citronella*, tissue culture 9085*****Citrullus***

- breeding 873
  - Kazakh SSR 8524
- chemicals, as plant constituents
  - fructose 6638
  - glucose 6638
  - sucrose 6638
- chemicals, fertility and sex, effects
  - aminoethoxyvinylglycine 8530
  - ethephon 8530
- chromosome translocation 2467
- Colletotrichum* 873, 2625, 4628, 5607, 6640
  - epistasis, fruit, colour 9250
  - fruit, colour 9250
  - fruit, number 6637
  - fruit, weight 6637
- Fusarium* 873, 4628
  - physiological races 4629
- gene interaction 9250
- genetic resources 873
- genetics 2620
  - Colletotrichum* 5607
    - fruit, colour 9250
  - Fusarium* 4629
    - seedlings, colour 11014
- hermaphroditism 8530
- heterosis 6637
- history and evolution 10067
- pathology 6639
- polyploidy 2467, 2624
- quality, for fresh consumption 6638
- seed, length 11013
- seedlessness 2467
- seedlings, colour 11014
- sex 8530, 10067
- varieties
  - Japan 3857
  - USA 4628
- variety trials
  - Pakistan 7683
  - Uzbek SSR 2623
- yield components 6637

***Citrus***

- abscission 6518
- anther culture 4536
- apomixis 5451, 6517
- breeding
  - book 7567
  - Egypt 9958
  - Georgian SSR 9955
  - Israel 6517
- Brevipalpus* 722
- chemicals, as plant constituents
  - acids 8414
  - anthocyanins 6517
  - ascorbic acid, review 3566
  - citric acid 5455



**Citrus contd.**

- chemicals, as plant constituents *contd.*
  - gentisoylglucose 2505
  - oil, essential 2504
- chemicals, general effects, sodium 10886
- chimeras 1677, 6517
- chromosomes, number 10228
- cold resistance 9128, 9956, 10214
- Deuterophoma* 9956
- fruit, colour 5455, 6517
- fruit, size 6517, 8414
- $\gamma$  rays 2504, 2814
- genetic resources 8414, 10849
- germplasm banks, Azerbaijan SSR 9957
- germplasm banks, technique 7818
- haploidy 4536
- height 6517
- hybridization 9128
- hybridization, interspecific 716
- leaf, shape 6517
- mutation 2501, 5452, 6517, 7567, 9956
- mutation, induced 1677
  - review 2814
- pathology, symposium 3567
- Phytophthora* 3568, 3572, 6517
- pollination 10885
- polyembryony and twinning 8415
- polyploidy 8415, 9955
- quality 9964
- quality, for fresh consumption 2504, 5455
- radiation 1677
- rootstock 9962, 10883, 10886
- salinity 6517, 6518, 10883
- salinity, technique 6518
- sterility and fertility 6517, 10885
- taxonomy 719, 6517, 7567, 9956
- tissue culture 7818
  - review 5452
- transformation 2501
- varieties
  - Australia 9960
  - Reunion 716
- viruses 2505, 9129
- wind 10891
- Xanthomonas* 1459, 1460
- Citrus**  $\times$  **Citrus**, pomelo, hybridization, interspecific 6519
- Citrus**  $\times$  **Dodonaea**, hybridization, intergeneric 2464
- Citrus**, grapefruit
  - breeding, Georgian SSR 9970
  - chemicals, as plant constituents
    - acids 9963
    - ascorbic acid 3566, 9963
    - flavonoids 9963
    - sugar 9963
  - cold resistance 9961, 10214
  - fruit, colour 9963
  - fruit, weight 9963
  - germplasm banks, Azerbaijan SSR 9957
  - hybridization, interspecific 5453, 9961
  - leaf, size 718
  - Phytophthora* 10887
  - plant introduction
    - from Georgian SSR 9954
    - to Azerbaijan SSR 9954
  - precocity of bearing 5453
  - quality 9964
  - quality, for fresh consumption 9961
  - taxonomy 8417
  - varieties, USA 9133
  - variety trials, Uzbek SSR 9959
- Citrus**, grapefruit  $\times$  **Citrus**, mandarin
  - chemicals, as plant constituents
    - ascorbic acid 9964
    - citric acid 5455
    - gentisoylglucose 2505
  - cold resistance 9970
  - fruit, colour 5455
  - hybridization, interspecific 2505, 5453, 5455, 9964, 9970
  - precocity of bearing 5453
  - quality, for fresh consumption 5455
  - viruses 2505
- Citrus**, grapefruit  $\times$  **Citrus**, orange
  - breeding, Puerto Rico 9126
  - chemicals, as plant constituents, ascorbic acid 9127, 9964
  - hybridization, interspecific 9126, 9127, 9964
- Citrus**, grapefruit  $\times$  **Citrus**, pomelo
  - hybridization, interspecific 9133

**Citrus**, grapefruit  $\times$  **Citrus**, pomelo *contd.*

- polyploidy 9133
- seedlessness 9133
- Citrus**, grapefruit  $\times$  **Poncirus**
  - apomixis 717
  - cold resistance 726
  - fruit 726
  - hairs 726
  - heterosis 717
  - hybridization, intergeneric 717, 726
  - leaf, number of parts 726
  - leaf, shape 717
  - nectar 726
  - polyembryony and twinning 717, 726
  - seasonal growth 726
  - seedlings 717
  - spines 726
- Citrus**, lemon
  - aneuploidy 2503, 3576
  - apomixis 2510, 5454
  - $\beta$  rays 1014
  - breeding, Georgian SSR 9953, 9955
  - chemicals, as plant constituents
    - acids 9963
    - ascorbate oxidase 10217
    - ascorbic acid 3566, 9963, 10217
    - cellulose 720, 10219
    - flavonoids 9963
    - gentisoylglucose 2505
    - nitrogen 10219
    - sugar 9963
  - chemicals, cytological effects, dimethoate 1014
  - chromosomes, aberrations 1014, 3576
  - cold resistance 9956, 9961, 9971, 10218
  - Deuterophoma* 720, 721, 3570, 3571, 9953, 9955, 9956, 9971, 10219
  - physiological races 1463
  - Deuterophoma*, technique 3569
  - development and growth 2503
  - dormancy 721
  - embryo culture 3576
  - fruit, colour 9963
  - fruit, number 725
  - fruit, shape 2503
  - fruit, size 2503
  - fruit, weight 725, 9963
  - $\gamma$  rays 2502, 2503, 2510
  - germplasm banks, Azerbaijan SSR 9957
  - habit 725, 10218
  - height 2502
  - hybridization, interspecific 2510, 9961
  - leaf 2503
  - leaf, colour 9956
  - leaf, size 718
  - mutation, *Deuterophoma* 9953
  - mutation, induced 2502, 2503, 9406, 10216
  - photosynthesis 2503
  - Phytophthora* 1461, 10887
  - plant introduction
    - from Georgian SSR 9954
    - to Azerbaijan SSR 9954
  - polyploidy 1014, 2503, 10217, 10219
  - quality 9964
  - quality, for fresh consumption 2502, 9961
  - radiation 10216
  - seasonal growth 2502
  - seedlessness 9406, 9953
  - tissue culture 5454
  - varieties, Georgian SSR 10216
  - variety trials, Uzbek SSR 9959
  - viruses 2505
  - wind 10891
- Citrus**, lemon  $\times$  **Citrus**, hybridization, interspecific 2510
- Citrus**, lemon  $\times$  **Poncirus**
  - apomixis 5454
  - cold resistance 726, 9965, 10890
  - Deuterophoma* 10890
  - fruit 726
  - hairs 726
  - hybridization, intergeneric 726, 5454, 9965, 10890
  - leaf, number of parts 726
  - nectar 726
  - polyembryony and twinning 726
  - quality, for fresh consumption 9965
  - seasonal growth 726
  - spines 726
  - sterility and fertility 9965
  - tissue culture 5454

**Citrus**, lemon  $\times$  **Poncirus** *contd.*

- varieties, Georgian SSR 10890

**Citrus**, lime

- chemicals, as plant constituents, ascorbic acid 3566
- fruit, size 9135
- fruit, weight 9135
- leaf, size 718
- mutation, spines 9134
- Phytophthora* 1461, 3568, 10887
- spines 9134

**Citrus**, lime  $\times$  **Fortunella**

- cold resistance 9965
- hybridization, intergeneric 9965
- quality, for fresh consumption 9965
- sterility and fertility 9965

**Citrus**, mandarin

- aneuploidy 2503
- apomixis 5451, 10884
- $\beta$  rays 1014
- breeding
  - Azerbaijan SSR 1462
  - France 715
  - Georgian SSR 9921, 9953, 9955, 9967
  - Ghana 2508
- chemicals, as plant constituents
  - acids 10219
  - ascorbic acid 3566
  - cellulose 720
  - citric acid 2509
  - gentisoylglucose 2505
  - phosphoglucosyltransferase 10884
  - phosphoglucose isomerase 10884
  - sugar 2509
- chromosomes, aberrations 1014
- cold resistance 9128, 9961, 9967, 10219
- Deuterophoma* 720, 721, 3571, 10219
- development and growth 2503
- dormancy 721
- fruit, shape 2503
- fruit, size 2503
- $\gamma$  rays 2502, 2503, 3573
- genetics
  - phosphoglucosyltransferase 10884
  - phosphoglucose isomerase 10884
- germplasm banks
  - Azerbaijan SSR 9957
  - Georgian SSR 9967
- growth period 724
- height 2502, 9953
- hybridization 724
- hybridization, interspecific 5453, 9961, 9969, 10884
- leaf 2503
- leaf, size 718
- mutation 2509, 9406
  - seasonal growth 9131
- mutation, induced 2502, 2503, 10216
- photosynthesis 2503
- Phytophthora* 1461, 10887
- plant introduction
  - from Georgian SSR 9954
  - to Azerbaijan SSR 9954
- pollen 4535
- pollination, technique 3574
- polyembryony and twinning 3573, 5451, 9132, 10884
- polyploidy 2503
- precocity of bearing 5453
- quality 9964
- quality, for fresh consumption 724, 2502, 9961
- radiation 10216
- seasonal growth 2502, 9131, 9953, 10218
- seedlessness 2467, 2509
- varieties
  - Australia 9960
  - Georgian SSR 9969
  - USA 5456
- variety trials
  - Georgian SSR 9131, 9968
  - Uzbek SSR 9959
- viruses 2505
- Citrus**, mandarin  $\times$  **Citrus**, grapefruit, hybridization, interspecific 2505, 5453, 5455, 9964, 9970
- Citrus**, mandarin  $\times$  **Citrus**, orange
  - apomixis 5451
  - hybridization, interspecific 5451, 5453
  - polyembryony and twinning 5451
  - precocity of bearing 5453



- Citrus, mandarin** × **Citrus, pomelo**  
chemicals, as plant constituents, ascorbic acid 9964  
cold resistance 9970  
hybridization, interspecific 9964, 9970
- Citrus, mandarin** × **Poncirus**  
apomixis 717  
cold resistance 726, 9965  
fruit 726  
hairs 726  
heterosis 717  
hybridization, intergeneric 717, 726, 5451, 9965  
leaf, number of parts 726  
leaf, shape 717  
nectar 726  
polyembryony and twinning 717, 726  
quality, for fresh consumption 9965  
seasonal growth 726  
seedlings 717  
spines 726  
sterility and fertility 9965
- Citrus, orange**  
abscission 4537  
aneuploidy 2503  
apomixis 5451, 5454  
β rays 1014  
breeding, Georgian SSR 9953, 9955  
chemicals, as plant constituents  
aminoacids 1460  
ascorbic acid 3566  
auxins 4537  
carnosine 1460  
cellulose 720  
citric acid 5455  
ethanolamine 1460  
gentioglucose 2505  
chemicals, cytological effects, dimethoate 1014  
chromosomes, aberrations 1014  
cold resistance 9128, 9961  
*Deuterophoma* 720, 3571  
development and growth 2503, 8416  
*Erwinia*, physiological races 1460  
fruit, colour 5455  
fruit, shape 2503  
fruit, size 2503, 8416  
fruiting, biennial or irregular 8416  
γ rays 2502, 2503  
germplasm banks, Azerbaijan SSR 9957  
grafting 10888, 10889  
grafting, technique 9130  
height 2502  
hybridization, interspecific 5453, 9961  
leaf 2503  
leaf, size 718  
mutation, induced 2502, 2503, 9406  
*Nezara* 2507  
parthenocarp 9966  
photosynthesis 2503  
*Phytophthora* 1461, 10887  
plant introduction  
from Georgian SSR 9954  
to Azerbaijan SSR 9954  
pollen 4535  
polyembryony and twinning 5451  
polyploidy 2467, 2503, 9966  
precocity of bearing 5453  
protoplasts 3825  
pruning 10889  
quality 9964  
quality, for fresh consumption 2502, 5455, 9961  
seasonal growth 2502  
seedlessness 2467, 9406, 9953  
spines 10888, 10889  
tissue culture 5454, 9130  
variety trials, Uzbek SSR 9959  
viruses 723, 2505, 9129  
*Xanthomonas* 1459  
physiological races 1460
- Citrus, orange** × **Citrus, grapefruit**, hybridization, interspecific 9126, 9127, 9964
- Citrus, orange** × **Citrus, mandarin**, hybridization, interspecific 5451, 5453
- Citrus, orange** × **Citrus, pomelo**  
chemicals, as plant constituents, ascorbic acid 9964  
hybridization, interspecific 6519, 9964
- Citrus, orange** × **Fortunella** × **Poncirus**  
hybridization, intergeneric 9961  
quality, for fresh consumption 9961
- Citrus, orange** × **Poncirus**  
apomixis 2506  
chemicals, as plant constituents, oil, essential 2504  
cold resistance 726, 9128, 9965, 9966, 10214  
fruit 726  
γ rays 2504, 2506  
germination 2506  
hairs 726  
hybridization, intergeneric 726, 1461, 2504, 2506, 9128, 9954, 9962, 9965, 9966, 10214  
leaf, number of parts 726  
nectar 726  
*Phytophthora* 1461  
plant introduction  
from Georgian SSR 9954  
to Azerbaijan SSR 9954  
polyembryony and twinning 726  
polyploidy 9966  
quality, for fresh consumption 2504, 9965, 9966  
rootstock 9962  
seasonal growth 726  
spines 726  
sterility and fertility 9965
- Citrus, pomelo**  
breeding, Georgian SSR 9970  
chemicals, as plant constituents  
acids 9963  
ascorbic acid 9963  
citric acid 5455  
flavonoids 9963  
sugar 9963  
cold resistance 9128, 10214  
fruit, colour 5455, 9963  
fruit, weight 9963  
germplasm banks, Azerbaijan SSR 9957  
hybridization, interspecific 5453  
leaf, size 718  
parthenocarp 6519  
*Phytophthora* 3568  
plant introduction  
from Georgian SSR 9954  
to Azerbaijan SSR 9954  
polyploidy 9136  
precocity of bearing 5453  
quality 9964  
quality, for fresh consumption 5455  
sterility, self 6519  
taxonomy 8417  
tissue culture 9136  
varieties, Georgian SSR 9970  
variety trials, Uzbek SSR 9959
- Citrus, pomelo** × **Citrus**, hybridization, interspecific 6519
- Citrus, pomelo** × **Citrus, grapefruit**, hybridization, interspecific 9133
- Citrus, pomelo** × **Citrus, mandarin**, hybridization, interspecific 9964, 9970
- Citrus, pomelo** × **Citrus, orange**, hybridization, interspecific 6519, 9964
- Citrus, pomelo** × **Poncirus**  
cold resistance 726  
fruit 726  
hairs 726  
heterosis 717  
hybridization, intergeneric 717, 726  
leaf, number of parts 726  
leaf, shape 717  
nectar 726  
polyembryony and twinning 726  
seasonal growth 726  
seedlings 717  
spines 726
- Citrus** × **Poncirus**  
chemicals, as plant constituents  
gentioglucose 2505  
oil, essential 2504  
hybridization, intergeneric 1458, 2504, 2505, 5451  
leaf, number of parts 1458  
quality, for fresh consumption 2504  
viruses 2505
- Citrus, tangerine**  
growth period 5457  
mutation 5457  
varieties, USA 3575
- Cladosporium**  
*Cucumis*, cucumber 827, 887, 3702, 11033  
*Lycopersicon* 827, 890, 915
- Cladosporium** *contd.*  
*Lycopersicon* *contd.*  
physiological races 917, 919, 1558  
*Rubus*, raspberry 9979  
*Solanum*, potato 5261
- Cladosporium**, technique, *Cucumis*, cucumber 2631
- Clarkia**  
chemicals, as plant constituents, phosphoglucose isomerase 5749  
genetics, phosphoglucose isomerase 5749  
linkage 5749
- Classification** (see Taxonomy; Varieties, classification)
- Claviceps**  
chemicals, as plant constituents  
ergocornine 993  
ergocryptine 993  
ergosine 993  
*Pennisetum* 2793  
*Secale* × *Triticum*, physiological races 7955  
*Triticum*, physiological races 7955
- Cleistogamy**  
*Aegilops* 7973  
*Gossypium* 7378  
grasses 10626  
*Vulpia* 3235
- Climate**  
*Dactylis* 6212  
*Hordeum* 2805, 6090, 8864  
*Oryza* 5125  
*Picea* 6592  
*Pinus* 6588  
*Psophocarpus* 6797  
*Sorghum* 3150  
*Tilia* 8472  
*Trifolium* 4292  
*Triticum* 1789, 10319  
*Zea*, maize 1929
- Clines** 9, 3810  
*Festuca* 5191  
*Hordeum* 2805  
*Oryza* 5125, 7190  
*Picea* 8488  
*Pseudotsuga* 6595
- Clitoria**, seed, size 1565
- Clover** (see *Trifolium*)
- Clover, Alsike** (see *Trifolium*, Alsike clover)
- Clover, crimson** (see *Trifolium*, crimson clover)
- Clover, minor species** (see *Trifolium*, minor species)
- Clover, red** (see *Trifolium*, red clover)
- Clover, subterranean** (see *Trifolium*, subterranean clover)
- Clover, sweet** (see *Melilotus*)
- Clover, white** (see *Trifolium*, white clover)
- Cnaphalocrocis**, *Oryza* 401, 6194, 8155, 8212, 8213, 9699
- Cnaphalocrocis**, technique, *Oryza* 1240
- Cob** (see *Corylus*)
- Coccomyces**, *Prunus*, cherry 2493, 2496
- Cochliobolus**  
*Agrostis* 2191  
*Avena* 1687  
cereals, physiological races 8705  
genetics  
cereals 8705  
*Zea*, maize 6058, 10495  
heritability 6058  
heterocaryosis 10495  
*Hordeum* 2059, 4104, 7873, 8124, 10524, 10525  
*Oryza* 1202, 2164, 3167, 6136, 6179, 8201, 8202, 8205, 8920, 9699  
*Pisum* 10167  
*Poa* 2191  
*Secale* × *Triticum*, triticales 2851  
*Sorghum* 4160, 7157, 7160, 10582  
*Tripsacum* × *Zea*, maize 4019  
*Triticum* 2850, 2883, 4893, 5841, 7873, 7881, 10369  
*Zea*, maize 281, 285, 1687, 1976, 2825, 3029, 3072, 3073, 3077, 4038, 4064, 4946, 6056, 6058, 6059, 6063, 7053, 8043, 8058, 8060, 10238, 10493, 10495, 10501  
physiological races 2008, 4069  
Ivory Coast 7069  
USA 8062
- Cochliobolus**, technique, *Zea*, maize 10501
- Cocksfoot** (see *Dactylis*)



**Cocoa** (see *Theobroma*)**Coconut** (see *Cocos*)**Cocos**

## breeding

Indonesia 6524

Ivory Coast 7571

centres of origin or diversity 6525

chromosomes, morphology 35

embryo culture 7575

flower, number 9977

flowering 738, 7572

height 35, 738, 2515

heterosis 738

history and evolution 6525

hybrid varieties 1468

hybridization 2515

leaf, colour 35

leaf, size 10895

migration 6525

New Hebrides disease 8420

pathology 9140

*Pestalotia* 35

pollen 2517

pollination 7572

pollination, technique 7574

polyembryony and twinning, review 3583

seed production 1468

seedlings 2516, 10895

selection, artificial 2516, 10895

sex 9977

spiral habit 7573

viruses 2515

**Coffea**

altitude 9048

aneuploidy 9874

## breeding

Ivory Coast 8352

Portugal 10800

chemicals, as plant constituents

acid phosphatase 8353

caffeine 627

esterase 8353

flavonoids 4449

isocitrate dehydrogenase 8353

leucine aminopeptidase 8353

malate dehydrogenase 8353

nucleic acids 8353

phosphoglucumutase 8353

6-phosphogluconate dehydrogenase 8353

phosphoglucose isomerase 8353

pipecolic acid 8357

flowering 9875

fruit, colour 10801

genetic resources 9047

## genetics

acid phosphatase 8353

esterase 8353

fruit, colour 10801

*Gibberella* 7481*Glomerella* 7480

height 10801

*Hemileia* 10803, 10804

isocitrate dehydrogenase 8353

leucine aminopeptidase 8353

malate dehydrogenase 8353

phosphoglucumutase 8353

6-phosphogluconate dehydrogenase 8353

phosphoglucose isomerase 8353

sterility and fertility 8356, 10801

germplasm banks, Costa Rica 1671

*Gibberella* 7481*Gibberella*, technique 3450*Glomerella* 7480

habit 9048

heat and drought resistance 3448, 4450

height 6426, 10801

*Hemileia* 1387, 4797, 5361, 6422, 6423,

6426, 6427, 10800, 10804, 10805

physiological races 9876, 10803

Angola 6424

India 3449

heritability 6425

history and evolution 4449, 8353

hybridization, interspecific 627, 8352,

8354, 8355, 9048, 9873

irrigation 4450

meiosis 8354, 8355

mixtures of crops or genotypes 10804

multiple alleles 8356

plant introduction

from Brazil 6422

**Coffea** contd.

plant introduction contd.

from Portugal 6423, 6424

to Angola 6423, 6424

to Indonesia 6422

polyploidy 8352, 8354, 8355, 9048

protoplasts 5360

quality, of beverage 10802

selection, artificial 6425

stability 9872

sterility and fertility 8354, 8355, 8356,

9048, 9874, 10801

taxonomy 4449, 8353

temperature, effect of 4450

tissue culture 5360

variety trials, India 626

water balance 4450

yield components 6425

**Coffee** (see *Coffea*)**Coix**

apomixis 5150

breeding, Japan 2177

tissue culture 9559

**Cola**

genetics, sterility and fertility 9051

gynecium 9051

pollen 9051

pollination 9051

sterility and fertility 9051

**Cold, effect of** (see also **Chilling**requirement; **Temperature, effect of**;**Vernalization**)*Agrostis* 7226*Allium*, onion 3655*Atropa* 6848*Beta*, sugar beet 3389, 6391*Brassica*, Brussels sprouts 5593*Brassica*, Chinese cabbage 1642*Capsicum* 6467

cereals 61

*Cryptomeria* 8493*Datura* 7819*Festuca* 7226

fruit crops 61

*Glycine* 2735*Gossypium* 545, 3354, 9817*Hordeum* 3836*Liquidambar* 803*Lolium* 5186, 7226*Lycopersicon* 10080*Malus* 2482, 10862*Morus* 732*Nicotiana* 6848*Oryza* 6154, 6171, 7185*Petunia* 6848*Phalaris* 6230*Poa* 7226*Solanum* 7603*Solanum*, potato 506, 6306*Tilia* 8472*Triticum* 3921

vegetable crops 61

*Vitis* 61*Zea*, maize 1969, 2002, 5985, 6034, 9558,

9560, 9587

*Zea*, sweet corn 2002**Cold resistance***Aegilops* × *Triticum* 1067*Agropyron* × *Triticum* 164, 2860,

2896, 3904

*Allium*, minor species × *Allium*, onion

8507

*Allium*, onion 6609*Arachis* 2442*Avena* 91, 10252*Brassica*, cauliflower 4621*Brassica*, rape 3668*Chloris* 3212, 3213*Cicer* 3791, 4670, 4671*Citrus* 9128, 9956, 10214*Citrus*, grapefruit 9961, 10214*Citrus*, grapefruit × *Citrus*, mandarin

9970

*Citrus*, grapefruit × *Poncirus* 726*Citrus*, lemon 9956, 9961, 9971, 10218*Citrus*, lemon × *Poncirus* 726, 9965,

10890

*Citrus*, lime × *Fortunella* 9965*Citrus*, mandarin 9128, 9961, 9967,

10219

*Citrus*, mandarin × *Citrus*, pomelo 9970*Citrus*, mandarin × *Poncirus* 726, 9965*Citrus*, orange 9128, 9961**Cold resistance** contd.*Citrus*, orange × *Poncirus* 726, 9128,

9965, 9966, 10214

*Citrus*, pomelo 9128, 10214*Citrus*, pomelo × *Poncirus* 726*Corylus* 785

crop plants 69

symposium 70

*Cydonia* 9114*Cynodon* 7242*Dactylis* 1242, 4248, 6213, 7824, 8940,

9725

*Daucus* 838*Digitalis* 9915, 9916*Elymus* 2205*Eragrostis* 6232*Euchlaena* 8048*Euchlaena* × *Zea*, maize 7049*Fagopyrum* 4232*Festuca* 1242, 10644*Fortunella* × *Poncirus* 726*Fragaria* 754, 5417*Glycine* 971, 4723, 4738*Gossypium* 9817

grasses 4247, 6203

review 7237

*Hordeum* 91, 2852, 3093, 3094, 3123,

5051, 10252, 10549

*Juglans* 2557, 4576, 6559, 9169*Lolium* 425, 1242, 5183, 5186, 7253,

7824, 9733

*Lonicera* 9152*Lotus* 8270*Lupinus* 6272, 6273*Lycopersicon* 914, 9277, 10080, 11061*Lycopersicon* - *Solanum*, potato 10237*Macroptilium* 6822*Malus* 2479, 2480, 2481, 3512, 3517,

3526, 4511, 6480, 7541, 8393, 9932,

10858

*Medicago* 450, 452, 1261, 3253, 3271,

5210, 7286, 7288

*Mentha* 5715*Morus* 732, 6521*Nicotiana* 592, 8347, 8348*Onobrychis* 1288, 6271*Oryza* 357, 1201, 3159, 3179, 3183,

3192, 4217, 5117, 5119, 6140, 6148,

7210, 7211, 7212, 7213, 7214, 7215,

7216, 7217, 7218, 7219, 7220, 7221,

7222, 8196, 8915, 9684

symposium 7209

*Persea* 3586*Phalaris* 10645*Phaseolus* 4686, 6722*Phleum* 4248, 4257, 7824*Picea* 5540*Pinus* 1507, 6589, 8476, 8483, 9198,

9199

*Pisum* 6780, 11182*Poa* 1243, 2190, 8230, 8936*Poncirus* 9128*Prunus*, almond 3620*Prunus*, apricot\* 2486, 7561, 10878*Prunus*, apricot × *Prunus*, cherry 2487*Prunus*, cherry 709, 1454, 2495, 5442,

5443, 8408, 9124, 9948, 9949

*Prunus*, nectarine 3517*Prunus*, peach 1456, 3517, 3562, 4532,

5447

*Prunus*, plum 3517*Pseudotsuga* 818, 5543, 8491*Psophocarpus* 8638*Punica* 7605*Pyrus* 696, 1448, 3517, 3539, 4522, 4523,

6491

*Quercus* 8459, 10947*Raphanus* 9232*Ribes*, black currant 670, 3500, 5415,

5473, 7589, 9983, 10915

*Ribes*, gooseberry 3592*Rosa* 5397*Rubus* 1471*Rubus*, blackberry 10903*Saccharum* 568, 1363, 10752, 10753*Secale* 91, 1650, 2860, 4004, 4005, 5814,

7993, 8788

*Secale* × *Triticum*, tritiale 1845, 2990,

3980, 8781

*Setaria* 3212*Solanum*, potato 506, 2256, 4345, 6322,

7333, 7334, 8293, 10693

*Stenotaphrum* 6237, 7270



**Cold resistance contd.**

- Trifolium*, red clover 461, 10671, 10672  
*Trifolium*, subterranean clover 4298, 6267  
*Tripsacum* × *Zea*, maize 7049  
*Triticum* 91, 124, 164, 167, 177, 192, 195, 1700, 1805, 1825, 1826, 1841, 1842, 1844, 1845, 2860, 2962, 3904, 3921, 3958, 4834, 4842, 5814, 5842, 5913, 5914, 6920, 6972, 7892, 7954, 8723, 8737, 8757, 9421, 9481, 10252, 10274, 10304, 10305, 10312, 10362, 10364  
*Vaccinium* 7590  
 vegetable crops, review 70  
*Vicia*, broad bean 6696  
*Vigna*, minor species 1644  
*Vitis* 781, 3614, 4573, 6542, 6547, 6549, 6556, 6557, 8449, 9158, 9161, 9164, 9167, 9168, 10006, 10013  
*Zea*, maize 279, 280, 1119, 1969, 2002, 2003, 2004, 3069, 4062, 5003, 5005, 6053, 6054, 7024, 7037, 7046, 7049, 8048, 8057

**Cold resistance, technique**

- Arachis* 2442, 10237  
 conifers 10952  
 crop plants 5798  
*Hordeum* 5051, 10254  
*Lycopersicon* 10237  
*Malus* 5429, 7554  
*Medicago* 3249  
*Phaseolus* 6721  
*Picea* 10953  
*Pinus* 3641, 10953  
*Secale* 6975  
*Solanum*, potato 10237  
*Triticum* 1846, 5908, 5915, 6974, 6975, 10254

**Collar rot, *Solanum*, egg plant 38*****Colletotrichum* 11014 (see also *Glomerella*; *Physalospora*)**

- Cajanus* 2764  
*Capsicum* 9093  
*Citrullus* 873, 2625, 4628, 5607, 6640  
*Cucumis*, cucumber 827, 3702, 8539  
 physiological races 2632  
*Cucumis*, melon 8529  
*Fragaria* 4554, 5477, 9145  
*Hibiscus* 1329  
*Lycopersicon* 915, 917, 7717  
*Medicago* 1274, 3242, 3273, 5208, 5223, 6250, 6254  
 physiological races, USA 2227  
*Phaseolus* 3733, 4692, 8583, 8588, 9369, 10098, 10103  
 physiological races 4693, 10104  
 Brazil 7748  
 Canada 2697  
 Kenya 1568  
 UK 11093  
*Solanum*, potato 6328  
*Sorghum* 4125, 4157, 5069, 7128, 7152, 7153, 8132, 8146, 10568, 10586  
 physiological races 8151  
*Stylosanthes* 4313  
*Tripsacum* × *Zea*, maize 4019  
*Vigna*, cowpea 10118  
*Zea*, maize 6056, 8058  
*Colletotrichum*, technique  
*Fragaria* 5479, 7595  
*Medicago* 10666  
*Nicotiana* 2378  
*Zea*, maize 1924, 6057

***Collybia***

- development and growth 3801  
 morphology 3801

***Colocasia***

- chemicals, as plant constituents, oxalic acid 9032  
 germplasm banks 7843  
 viruses, technique 3419

**Colour**

- Eleusine* 9636, 10566  
*Glycine* 4715, 4716  
*Gossypium* 9802, 10717  
*Hibiscus* 9019  
*Lolium* 7245  
*Malus* 685  
*Poa* 5166  
*Ricinus* 2407  
*Sorghum* 5077, 7137  
*Zea*, maize 9536, 9576

***Colza* (see *Brassica*, rape)****Combining ability 1622**

- Arachis* 5396, 6456  
*Avena* 226  
 forage 10406  
 protein 8782  
 yield components 10406  
*Beta*, beetroot  
 betacyanins 8501  
 betaxanthin 8501  
*Beta*, sugar beet 7422, 7656  
*Brassica*, kale 2617  
*Brassica*, oil crops 2400, 4453, 4454, 4459, 9053  
*Brassica*, swede 7834  
*Bromus* 4258  
*Cajanus* 3797, 3798  
 yield components 10187  
*Capsicum* 2586  
*Cicer* 984, 3788, 4757, 5709  
 growth period 10181  
 height 10181  
 yield components 10181  
*Corchorus* 3380  
 quality, of fibre 9017  
*Cucumis*, cucumber 3698  
 parthenocarp 8532  
*Cyamopsis* 1292  
*Dactylis* 6209  
*Daucus* 9220  
*Desmodium* 5241  
*Festuca* 6225  
 digestibility 8947  
 hemicellulose 8947  
 protein 8947  
*Fragaria* 1479  
*Glycine* 4728  
 yield components 9318  
*Gossypium* 529, 554, 1340, 2288, 2290, 2311, 3366, 4370, 4379, 4393, 5283, 5299, 6263, 7375, 7376, 7382, 7390, 9806  
 fruit, number 9816  
 fruit, weight 9816  
 growth period 10724  
 quality, of fibre 9005, 10718  
 seed, number 9816  
*Verticillium* 10724  
 yield components 9816, 10712, 10716  
*Helianthus*, sunflower 3470, 5378, 6444, 7489, 9069  
 yield components 9887, 10821  
*Hibiscus* 2321, 2326, 4402  
 yield components 10740  
*Hordeum* 303, 2019, 2020, 3100, 3108, 7100  
 height 9606  
 yield components 9606  
*Lablab*, leaf, size 7797  
*Linum* 2316, 2317, 7396  
 growth period 9010  
 oil, fatty 7398  
 yield components 9011  
*Lolium* 425  
*Lotus* 4309, 4310, 9761  
*Lycopersicon* 896, 4640, 6648, 7701, 7702, 7706, 7709, 8548  
 ascorbic acid 11055  
 fruit 11055  
 fruit, texture 8542  
 quality, for food processing 11055  
 yield components 8544, 11046  
*Malus* 3526, 5421  
*Medicago* 447, 3268, 4279, 5209, 5214, 5217, 6251, 10658, 10659  
 stem, number 10661  
*Momordica*, yield components 11039  
*Nicotiana* 1374, 3423, 10780, 10781  
*Onobrychis* 1288  
*Oryza* 5127, 5133, 8886  
 yield components 9663  
*Pennisetum* 324  
 yield components 8875  
*Phalaris* 3228  
*Phaseolus*, yield components 8574  
*Phleum* 3216  
*Picea* 813  
*Pinus* 5533, 7625, 7635  
*Cronartium* 10960  
*Pisum* 983, 1599, 2741, 3777, 5700, 8621  
 yield components 10164  
*Poa* 2186  
*Psophocarpus* 8626, 8640

**Combining ability contd.**

- Pyrus* 694, 696  
 fruit, size 9935  
 fruit, weight 9935  
*Saccharum* 7412  
*Secale* 7018, 7994, 7997  
*Secale* × *Triticum*  
*Claviceps* 7955  
 height 8778  
*Secale* × *Triticum*, triticale 1881  
*Sesamum* 5375  
*Solanum*, egg plant 1563  
*Solanum*, potato 492, 502, 2257, 3313, 4335, 4342, 7319, 7320, 7361, 7836, 9771  
 specific gravity 10685  
 tuber, number 9781, 10686  
 tuber, weight 10686  
 yield components 9781, 10685  
*Sorghum* 334, 2082, 2083, 2085, 2094, 4117, 4128, 4129, 4131, 4132, 4137, 4145, 5075, 7134, 7147, 8140, 9643  
*Cochliobolus* 10582  
 endosperm 9642  
 forage 10577  
 growth period 9642, 9645  
 height 9642, 9645  
 nitrate reductase 7133  
 tannin 10581  
 yield components 9645, 10577  
*Theobroma*, viruses 9049  
*Trachyspermum* 9340  
 yield components 11197  
*Trifolium*, red clover 7296  
*Triticum* 110, 113, 152, 1061, 1062, 1085, 1762, 1799, 2882, 2885, 2887, 2909, 2952, 2954, 3877, 3901, 3925, 4868, 4887, 5849, 5883, 5896, 6888, 6932, 10293  
*Claviceps* 7955  
 cold resistance 7892  
 development and growth 9458, 10320  
 germination 8726  
 growth period 9461, 10291, 10320  
 height 8726, 9463, 10291, 10320  
 protein 9473  
 root, length 10310  
 root, weight 10310  
 seed, number 10320  
 spikelets, number 10320  
 tillering 10320  
 yield components 9463, 10291  
*Vicia*, broad bean 6690  
*Vigna*, cowpea, seed, weight 9301  
*Vigna*, minor species 1622, 7756  
 forage 11115  
 yield components 10124, 11118  
*Zea*, maize 1916, 1991, 1995, 3037, 3044, 3045, 3054, 4018, 4021, 4063, 5978, 5979, 6004, 6005, 6021, 7040, 7042, 7050, 8012, 8046, 8803, 9548, 10443, 10451  
*Cochliobolus* 10501  
*Diatraea* 10508  
 flowering 8801  
 growth period 8024  
 height 8802  
 protein 10485  
*Zea*, popcorn 5021  
*Zea*, sweet corn 4076  
**Combining ability, technique**  
 forest trees 10946  
 fruit crops 2463, 10851  
*Helianthus*, sunflower 10818  
*Solanum*, potato 9776  
*Triticum*, yield components 9457  
*Vicia*, broad bean 3725  
*Zea*, maize 4952  
**Commelina**  
 chromosomes, morphology 6471  
 chromosomes, number 6471  
**Compatibility (see Sterility and fertility)**  
**Competition** 7808, 10202  
 crop plants 5049, 6873  
*Gossypium* 4385, 6356, 10720  
*Helianthus*, sunflower 10818  
*Hordeum* 5049, 6071  
*Lolium* 8945, 10637  
*Medicago* 2216, 4279, 8954  
*Oryza* 7193  
*Picea* 2582  
*Pinus* 7638  
*Poa* 2189, 9721



**Competition contd.**

- Populus* 9177
- Rhizobium* 3277, 11122
- Trifolium*, white clover 1284, 7298, 8262
- Triticum* 95, 6938, 7935, 10269, 10358
- Vicia*, broad bean 6694

**Complementary genes (see Multiple genes)****Complementation**

- Cucumis*, cucumber 7685
- Daucus* 10045
- Nicotiana* 8343
- Zea*, maize 8025

**Complex loci, *Zea*, maize, anthocyanins**

8800

**Composite varieties**

- Avena* 9505
- cereals 4826
- crop plants 2830, 9416
- Glycine* 3747
- Hordeum* 10241
- Oryza* 4189, 5117, 5119
- Schizachyrium* 1253
- Triticum* 2850, 4826, 6896
- Vicia*, vetch 3289
- Zea*, maize 7021, 9582, 10423

**Computer programming** 59, 3818, 5726, 5733

- Brassica* 1529
- crop plants 47, 5767, 5777, 6851, 7839
- Oryza* 2112, 8153
- Solanum*, potato 6284
- Stylosanthes* 5767
- Triticum* 6950, 7894, 10340
- Urochloa* 5767

**Computer simulation** 2, 999, 3814, 4774, 4776, 4778, 4780, 5724, 5732, 6826, 6828, 7806

- Arachis* 4484
- crop plants 9397
- forest trees 6566
- Gossypium* 539
- Nicotiana* 10778
- Picea* 1514
- Zea*, maize 1934, 4010

**Cone**

- Larix* 2583
- Picea* 8488

**Cone, colour**

- Abies* 4596
- Pinus* 9196

**Cone, shape, *Pinus*** 808**Cone, size, *Pinus*** 9195, 9196**Conifers**

- cold resistance, technique 10952
- heat and drought resistance, technique 10952
- polyploidy 5744
- polyploidy, technique 805

**Coniophora, *Quercus*** 9176**Conotrachelus, *Juglans*** 9170**Conserving quality (see Quality, for conserving)****Contarinia, *Sorghum*** 2102, 2794, 4173, 7176, 8132, 8144, 8145**Contarinia, technique, *Sorghum*** 8709**Controlling elements** 9382

- Zea*, maize 6009, 7035, 10427, 10428, 10432, 10441, 10447, 10448, 10449, 10464

**Cooking quality (see Quality, for cooking)****Corchorus**

- aneuploidy 4400, 7401
- cell division 7399
- chromosomes, aberrations 7399
- chromosomes, morphology 7400
- combining ability 3380
- quality, of fibre 9017
- desynapsis 7401
- diallel analysis 3380
- $\gamma$  rays 7399
- genetics
  - desynapsis 7401
  - leaf, shape 9018
- growth period 8316
- habit 8317
- height 10735
- heritability 3381
- quality, of fibre 9017, 10737
- hybridization, interspecific 7402, 10736
- leaf, shape 9018
- leaf, size 8317
- meiosis 7399, 7401
- multivariate analysis 10736

**Corchorus contd.**

- mutation, induced 5780, 6366, 7399
- growth period 8316
- habit 8317
- leaf, size 8317
- photoperiodism 8316
- neutrons 8316
- photoperiodism 8316
- pollen 7402
- polyploidy 4400
- quality, of fibre 9017, 10737
- radiation 8317
- root 3380
- stem, size 10735
- sterility and fertility 7402
- stomata 3381
- yield components 3380, 10735, 10736

**Coriander (see Coriandrum)****Coriandrum**

- breeding, Ukrainian SSR 9904
- chemicals, as plant constituents, oil, essential 11200, 11201
- chemicals, fertility and sex, effects
  - BA 11199
  - GA 11199
- development and growth 11200
- flowering 11199
- $\gamma$  rays 11200
- germplasm banks, Ukrainian SSR 9903
- growth period 10193
- inbreeding 7803
- mutation, induced, oil, essential 11200
- sex 11199
- sterility and fertility 11200
- X rays 11200

**Cork, *Solanum*, potato** 8974**Corn (see Cereals; *Hordeum*; *Triticum*; *Zea*, maize)****Corolla**

- Brassica* 1533
- Brassica*, oil crops 633
- Cucumis*, cucumber 11023
- Lespedeza* 9758

**Corolla, colour**

- Brassica* 1533
- Cajanus* 4760
- Hibiscus* 9019
- Raphanus* 1525

**Corolla, shape, *Cucumis*, cucumber** 11028**Coronilla**

- breeding, USA 3300
- chromosomes, number 9744
- soil pH 3300
- synthetic varieties 3300
- toxic soils 3300

**Corticism**

- Beta*, sugar beet 9844
- Cicer* 2753, 4667
- Lolium* 7245
- Oryza* 1202, 6180, 8206, 8208, 9703
- review 9707
- Phaseolus* 6728, 6730, 8586

**Corticism, technique, *Oryza*** 4222**Corylus**

- breeding, Azerbaijan SSR 787
- chemicals, as plant constituents
  - cellulose 1495
  - chlorophyll 3619
  - hemicellulose 1495
  - oil, fatty 1495
  - protein 1495
  - starch 1495
  - sugar 1495
- chemicals, mutagenic effects, *N*-nitroso-*N*-methylurea 3619
- cold resistance 785
- cuttings 5508
- ecotypes 2563
- fruit, shape 10021
- fruit, size 10021
- genetics
  - fruit, shape 10021
  - fruit, size 10021
  - leaf, shape 10021
- hybridization, interspecific 10021
- leaf, shape 10021
- mutation, induced 3619
- photoperiodism 2563
- pollination 785
- polyembryony and twinning 5782
- rooting capacity 5508
- seasonal growth 9172

**Corylus contd.**

## varieties

- Azerbaijan SSR 787
- Georgian SSR 9172
- Greece 6476
- Italy 6477
- USA 10942

**Corynebacterium**

- Lycopersicon* 2591, 11058
- Medicago* 453, 1274, 5210, 6249, 10656, 10665

*Solanum*, potato 508**Corynebacterium, technique**

- Lycopersicon* 11059
- Medicago* 3272

**Corynespora, *Glycine*** 8597**Cosmopolites, *Musa*** 7597**Costus**

- germplasm banks, technique 7818
- tissue culture 7818

**Cotton (see *Gossypium*)****Couch (see *Agropyron*)****Cowpea (see *Vigna*, cowpea)****Crambe**

- chemicals, as plant constituents
  - glucosinolates 10054
  - sinigrin 10054
  - wax 10054
- Lipaphis* 10054
- vascular tissue 10054

**Cranberry (see *Vaccinium*)****Crataegus**

- chromosomes, number 3542
- fruit 10872
- heat and drought resistance 3543
- leaf 10872
- leaf, shape 3542
- taxonomy 3542

**Cress (see *Lepidium*)****Crimson clover (see *Trifolium*, crimson clover)****Crinipellis, *Theobroma*** 4451**Cronartium**

- Pinus* 1513, 3644, 6591, 7642, 8479, 9200, 9201, 10960, 10961
- physiological races 8484
- Ribes*, black currant 5472

**Cronartium, technique, *Pinus*** 6590**Crop plants**

- aneuploidy 60
- anther culture 1674, 9357, 9359, 9360
- review 2815, 9355, 9356, 9358
- symposium 8667
- apomixis 23
- back crossing 4803
- breeding 41, 1648, 1666, 1691, 1835, 3843, 3851, 5777, 5796, 7840, 7853, 7857, 7858, 9378, 9380, 9399
- China 2815
- Europe, book 1011
- Moldavian SSR 9374
- Netherlands 3844, 7838
- Norway 1011
- Pakistan, symposium 5766
- Poland 51
- review 3842, 9396
- Sweden 1011, 1667, 1668, 6850, 9403
- symposium 1647, 4807, 9375, 9386
- Ukrainian SSR 9421
- USSR 39, 3850, 5771, 6859
- breeding, technique 47, 4804, 5769, 6851, 6857, 7845, 8681, 9401
- book 4806
- cell culture 21, 5790, 9359
- centres of origin or diversity 5735
- chemicals, as nutrients
  - miscellaneous 1685
  - symposium 8690
- chemicals, as plant constituents
  - agglutinins 2821
  - aminoacids, technique 1023
  - chlorophyll 64, 10226
  - fatty acids 65
  - glycinebetaine 5789
  - lignin 1693
  - miscellaneous, technique, book 2773
  - nitrogen, technique 5786
  - nitrogenase 10199
  - nucleic acids 57, 3048, 5798, 6863
  - review 8
  - phenols, technique 1024
  - phytoalexins 2821, 2824, 2829
  - proline 5789



**Crop plants contd.**

- chemicals, as plant constituents *contd.*
  - protein 6870, 10234
  - review 1018, 1019, 1024
  - protein, technique 1023, 1024, 3863, 9411
- chemicals, cytological effects
  - GA 1009
  - IAA 1009
- chemicals, general effects
  - bacterial toxins, review 1690
  - carbohydrates 2824
  - fungal toxins, review 1690
  - fungicides 71
  - glycoprotein 2824
  - monilicoin A 2824
- chimeras, technique 1625
- chloroplasts 64
- chromatids, technique, review 10096
- chromosome translocation 126
- chromosomes, aberrations 1009, 10230
- chromosomes, addition and substitution 126
- chromosomes, morphology, technique 16, 10204
- chromosomes, number 1679, 3861
- cold resistance 69
  - symposium 70
- cold resistance, technique 5798
- competition 5049, 6873
- composite varieties 2830, 9416
- computer programming 47, 5767, 5777, 6851, 7839
- computer simulation 9397
- density of stand 5049
- diallel analysis 3848, 6861, 10225
- embryology 10231
- experimental designs 1665, 3027, 4805, 6873, 9400
- fungi 1693, 1694, 1695, 2820, 3871, 9403, 9417, 10238
  - physiological races 1697, 1698, 9416
  - USSR 9427
  - review 1687, 1691
- $\gamma$  rays 64, 2814
- genetic drift 10230
- genetic engineering, symposium 5787
- genetic resources 41, 1650, 1653, 1671, 1682, 3844, 3845, 5735, 5770, 6854, 6856, 7842, 8677, 8684, 9399, 9404, 9412, 10223
  - book 8680
  - symposium 1660
- genetic resources, technique 10279
- genetics 5735
  - bacterial toxins, review 1690
  - fungal toxins, review 1690
  - fungi 1697, 1698
  - review 2820
  - pathology 2819, 2826
  - review 1692
  - photosynthesis, review 63
  - sterility, self 2826
- genome analysis 60
- germplasm banks 7840
  - Afghanistan 7844
  - Colombia 7844
  - Costa Rica 49, 1671
  - Cuba 7844
  - Czechoslovakia 1658
  - Ethiopia 1661
  - German Democratic Republic 1654
  - German Federal Republic 1655, 1662, 7844
  - Israel 1651, 7844
  - Italy 1656
  - Malawi 7844
  - Moldavian SSR 10222
  - Netherlands 1657, 3845, 3846
  - Nigeria 8677
  - Poland 1652
  - Portugal 10220, 10221
  - review 1670
  - Sweden 7844
  - Taiwan 1672
  - USA 7844
  - USSR 40, 45
  - Zambia 7844
- germplasm banks, technique 1671, 3849, 5767, 8678, 8679
- glass and plastic, cultivation under 69
  - symposium 70
- habit 4814

**Crop plants contd.**

- habit, technique 9337
- haploidy 8686, 9397
  - review 5781, 10205
- harvest index 9379
- harvesting, mechanical 9412
- heat and drought resistance, technique 1689, 5793
- heritability 3848
- heterosis 1012, 6863, 10226
- heterozygosis 7854, 9397
- history and evolution 1682, 7850
- homozygosis 9397, 9401
- hybridization, interspecific, review 8684
- hybridization, technique 6862
- hybridization, wide 126, 1675, 6865
- immunology 3871
- inbreeding 42, 5777, 9401
  - book 2811
- insects 9403, 9418, 9419
  - book 2774, 7858
  - review 9413
  - symposium 7857
- Klebsiella* 9395
- legislation 44, 3844, 5773, 7840
- light, effect of 3820
  - symposium 70
- luminescence 10224
- meiosis 6845
- mitochondria 3048
- mixtures of crops or genotypes 1697, 4816, 7850, 9416
- molecular genetics 9395
  - review 8
- multivariate analysis 59, 5767, 7845
- mutation 1013, 9347, 10230
  - chlorophyll 10226
  - crossing over, review 8666
  - meiosis, review 8666
  - review 6865
- mutation, induced 14, 64, 294, 1020, 1624, 1625, 3820, 4364, 9347, 9359, 9381
  - book 6866
  - crossing over, review 8666
  - meiosis, review 8666
  - review 2814
  - symposium 5780
- mutation, induced, technique 3859
- nematodes 4364, 4365
  - bibliography 3873
  - physiological races 4365
- nitrogen fixation 9395
- pathology 1688, 1835, 2819, 2821, 2826, 2830, 3868, 3869, 3870, 4817, 4818, 5796, 6876, 8691, 9414, 9415, 10236
  - review 1026, 1691, 1693, 2824, 2825, 5797
  - symposium 2818, 6182, 7857
- photoperiodism 6857
- photorespiration 5784
- photosynthesis 64, 9379
  - review 63
- physiology 9379
  - book 7841
  - review 6836
- plant introduction
  - to Japan, symposium 9370
  - to USA 1670
- pollen, technique, review 22
- pollution, atmospheric 41
- polyploidy 60, 4803, 6845, 6865, 7855, 9358, 9407
  - review 6836, 7850, 7853, 7854
- population genetics 59
- protoplast fusion 1674, 2375, 3825, 5790, 6845, 8683, 9357
  - review 8687
  - symposium 8667
- protoplasts, review 8687
- protoplasts, technique 2817
- quality 6872
- quality, for nutrition 1024
- quality, technique 1681
- radiation 1624, 9347
  - symposium 1659
- reproduction 6851
- Rhizobium* 8688, 9395
- root, technique 10233
- salinity 5789, 5790, 5792
  - review 68, 1684, 6875
- seed production 39, 51
- seed storage 10230

**Crop plants contd.**

- selection, artificial 42, 46, 1020, 3848, 5049, 5792, 6852, 6860, 9397, 9398, 9402
  - sterility and fertility 2826
  - sterility, male, cytoplasmic 3048
  - sterility, self 2826
  - synthetic varieties 2830
  - taxonomy 187, 5719
    - review 1683
  - temperature, effect of, technique 5793
  - tissue culture 5790, 5793, 8688, 8689, 9357
    - review 8687
    - symposium 8667
  - transformation 5788, 5790, 9395
  - translocation, physiological 9379
  - ultraviolet rays 64
  - variation 5735
  - variation, technique 59
  - varieties 294
    - Finland 7829
    - German Federal Republic 5776
    - Netherlands 5775
    - Poland 51
    - USA 8494
  - varieties, technique 3856
  - variety trials
    - Denmark 3841
    - Rhodesia 2813
  - variety trials, technique 2810, 3027, 3852, 4812, 5769, 5773, 5774
  - vegetative reproduction, review 2787, 3826, 5748
  - viruses 1693, 9403
    - review 2827
  - yield 6858
  - yield components, technique 5783
- Crossing (see Hybridization)**
- Crossing over** 1627, 4784
- Agropyron*  $\times$  *Triticum* 2891
  - Allium*, onion 9351, 10050
  - Beta*, sugar beet 2350, 2351
  - Festuca* 7261
  - Festuca*  $\times$  *Lolium* 1252
  - Glycine* 4732, 8602
  - Hordeum* 1045
  - Hordeum*  $\times$  *Secale* 1045, 4087, 10533
  - Lolium* 5181
  - Lycopersicon* 899
  - review 17
  - Secale* 1887, 4939, 7998, 7999
  - Secale*  $\times$  *Triticum* 1887
  - Secale*  $\times$  *Triticum*, tritcale 7980, 7981
  - Trigonella* 4315
  - Zea*, maize 4025, 4970, 6014, 8809, 10454, 10457
- Crotalaria**
- Apis* 2331
  - chromosome translocation 10745
  - chromosomes, aberrations 10745
  - chromosomes, number 432
  - review 8320
  - $\gamma$  rays 10745
  - Megachile* 2331
  - meiosis 10745
  - mutation, induced 10745
  - chromosome translocation 10745
  - pollination 2331
  - Xylocopa* 2331
- Crown blight, *Cucumis*, melon** 5602
- Crown vetch (see *Coronilla*)**
- Cruciferae**
- breeding, symposium 3659, 5565, 5574
  - chemicals, as plant constituents
    - glucosinolates 10054
    - sinigrin 10054
    - wax 10054
  - Heterodera*, technique 5578
  - Lipaphis* 10054
  - vascular tissue 10054
- Crumenulopsis*, *Pinus*** 5537
- Cryptoblabes*, *Sorghum*** 4160
- Cryptodiaporthe***
- chemicals, as plant constituents
    - cellulase 3628
    - polygalacturonase 3628
  - chemicals, general effects, *Populus* extract 3628
  - Populus* 1502, 3628, 7631
- Cryptomeria***
- chromosomes, morphology 8492



**Cryptomeria** *contd.*

- chromosomes, morphology, technique 8493
- chromosomes, number 8492
- cold, effect of 8493

**Cucumber** (see *Cucumis*, cucumber)**Cucumis**

- breeding 873
- chemicals, fertility and sex, effects, aminoethoxyvinylglycine 10977
- chromosomes, morphology 11038
- chromosomes, number 11038
- embryo culture 10977
- epistasis 8538
- genetic resources 873
- genetics 2620
- Sphaerotheca* 8538
- genome analysis 2635
- germplasm banks, Netherlands 11036, 11037
- history and evolution 2635
- hybridization, interspecific 2635, 10977
- meiosis 2635
- Meloidogyne* 10977, 11036
- pollination 10977
- polyploidy 2635
- reciprocal effects, sterility and fertility 8525
- Sphaerotheca* 8538, 11036
- sterility and fertility 2635
- taxonomy 11037
- viruses 10977, 11036

**Cucumis, cucumber**

- Aphis* 3693
- Ascochyta* 2631
- breeding, USSR 4632, 10980
- chemicals, as plant constituents
  - aminoacids 10042
  - cucurbitacins 7694, 7695
  - esterase 883
  - nitrogen 10042
  - pectinase inhibitor 887
  - peroxidase 883
- chemicals, fertility and sex, effects
  - aminoethoxyvinylglycine 5611, 11027
  - chlormequat 9253
  - ethephon 885, 1550, 2629, 6643, 7690
  - GA 884, 885, 1550, 6644, 9253
  - growth regulators 4634
  - silver nitrate 884, 6644, 10977
  - silver thiocyanate 10977
  - silver thiosulphate 884, 6644
- chemicals, general effects, atrazine 3703
- chemicals, mutagenic effects, ethyleneimine 886, 8535, 11025, 11028
- Cladosporium* 827, 887, 3702, 11033
- Cladosporium*, technique 2631
- Colletotrichum* 827, 3702, 8539
- physiological races 2632
- combining ability 3698
- parthenocarp 8532
- complementation 7685
- corolla 11023
- corolla, shape 11028
- determinate and indeterminate habit 8531
- Diabrotica* 9419
- diallel analysis 3699
- Diaphania* 888
- embryo sac 882
- epidermis 11030
- Erwinia* 5610
- flowering 8532
- fruit, anatomy 11030
- fruit, shape 11023
- fruit, size 10977
- fruit, texture 7692, 10072
- Fusarium* 9255
- Fusarium*, technique 11032
- $\gamma$  rays 882, 2628
- genetic resources 9412
- genetic variance
  - fruit, size 7686
  - fruit, weight 7686
  - growth period 7687
  - internode, length 8531
  - internode, number 8531
  - stem, number 7686
  - yield components 7687
- genetics 2620
- corolla 11023
- corolla, shape 11028

**Cucumis, cucumber** *contd.*

- genetics *contd.*
  - determinate and indeterminate habit 8531
  - Erwinia* 5610
  - gynecium 7692
  - hairs 11026
  - leaf, shape 11028
  - leaf, size 11024
  - quality, for fresh consumption 7696, 10977
  - sex 4634, 5610, 7685, 8535, 11025
  - spines, colour 11030
  - Tetranychus* 7696
- glass and plastic, cultivation under 1549, 3695, 3697, 3701, 6641, 10068, 10069, 10980
- grafting 8539
- growth period 2631, 7687, 8532
- gynecium 7692
- hairs 888, 4633, 11026
- harvesting, mechanical 9412, 10071, 11031
- heritability 3698, 4635
- flowering 8532
- fruit, number 11022
- growth period 7687, 8532
- parthenocarp 8532
- sex 8532
- yield components 7687
- heterosis 3699
- fruit, weight 7686
- parthenocarp 8532
- sex 8532
- stem, number 7686
- history and evolution 10067
- hybrid varieties 9252, 10068, 10071
- hybrid varieties, technique 7688, 7690, 8535
- hybridization, interspecific 882, 6642, 7686, 8533, 8534, 11022
- inbreeding 7691
- internode, length 8531
- internode, number 8531
- laser beams 886
- leaf 888
- leaf, shape 11028
- leaf, size 11024
- light, effect of 3700, 10977
- linkage 5610, 7694
- determinate and indeterminate habit 8531
  - internode, length 8531
  - internode, number 8531
- Meloidogyne* 922, 10042, 10073
- multiple genes 7694, 8531
- mutation 883, 4633
- corolla 11023
- fruit, shape 11023
- hairs 11026
- leaf, size 11024
- sterility, male 11023
- mutation, induced 886, 10981
- corolla, shape 11028
- leaf, shape 11028
- parthenocarp 3694, 4633, 8532
- photoperiodism 4634
- photosynthesis 5612
- pollen 882, 2628
- pollination 882, 11029
- pollination, technique 6642, 6867
- Pseudomonas* 2630, 7693, 9254
- Pseudomonas*, technique 9254
- Pseudoperonospora* 827, 828, 10070
- quality, for fresh consumption 7696, 10977
- quality, for pickling and salting 2627, 4635, 8536
- quality, for storage 4635, 8537
- radiation 5612
- Rhizopus* 3701
- rootstock 8539
- salinity 5613
- seed, number 7691
- seed production 7690
- seed, size 7692
- seed, weight 7691
- sex 884, 885, 1550, 2629, 3699, 3700, 4633, 4634, 5610, 5611, 6643, 6644, 7685, 7689, 7690, 8532, 8535, 9253, 10067, 10977, 11025, 11027
- sowing and planting date 11031

**Cucumis, cucumber** *contd.*

- Sphaerotheca* 827, 2630, 6645, 6646, 11034
- spines, colour 11030
- Stemphylium* 11033
- sterility and fertility 6642, 8534, 11024
- sterility, male 11023
- stomata, number 4635
- stomata, size 4635
- succession, crop 1549
- temperature, effect of 3700, 4634, 10977
- Tetranychus* 7694, 7695, 7696, 9413, 10977, 11035
- tissue culture 885, 6643
- Trialeurodes* 9413
- varieties
  - Cuba 10070
  - Netherlands 5609
  - Sweden 10071
  - USSR 828, 10980
- variety trials
  - Brazil 11021
  - German Federal Republic 3695
  - Romania 1549, 6641
  - Turkmen SSR 10069
  - Ukrainian SSR 3696, 3697
  - USA 2627
  - USSR 9252, 10068
- viruses 827
- water balance 11035
- yield components 886, 3698, 7687
- Cucumis, cucumber  $\times$  Cucumis, melon**
  - hybridization, interspecific 8534
  - sterility and fertility 8534
- Cucumis, melon**
  - andrecium, anatomy 6849
  - Aphis* 5605, 11012
  - breeding 873
    - Kazakh SSR 8524
    - USA 5601, 6633
  - chemicals, as plant constituents
    - aminoacids 10042
    - ascorbic acid 5604
    - chlorogenic acid 876
    - chlorophyll 11006
    - flavonol glycosides 876
    - nitrogen 10042
    - phenols 876
    - sucrose 5604
  - chemicals, fertility and sex, effects
    - ABA 2622
    - aminoethoxyvinylglycine 7681
    - chloroflurecol 2622
    - ethephon 2622
    - GA 2622, 7681
    - kinetin 2622
    - morphactin 2622
    - NAA 2622
    - silver nitrate 7681
  - chemicals, general effects, sulphur 8526, 8527
  - chromosomes, morphology 2621
  - chromosomes, number 2621
  - Colletotrichum* 8529
  - crown blight 5602
  - Diabrotica* 7682
  - diallel analysis 4627
  - Didymella* 11011
  - Erysiphe* 5606
  - fruit, colour 8525
  - fruit, shape 11008
  - fruit, weight 875
  - Fusarium* 8500, 8528
  - physiological races, France 2589
  - genetics 2620
    - Aphis* 5605, 11012
    - chlorophyll 11006
    - Fusarium* 2589, 8500, 8528
    - growth period 4627
    - hairs 11006
    - sterility, male 11007
    - viruses 5605
  - germplasm releases, USA 11005
  - glass and plastic, cultivation under 1520
  - growth period 4627
  - habit 5601, 5602
  - hairs 9249, 11006
  - harvesting, mechanical 5602
  - heritability 875
  - heterosis 6635
  - hybrid varieties 7680
  - hybridization, interspecific 874, 8534
  - internode, size 5601



**Cucumis, melon contd.**

- lethals 11006
  - Meloidogyne* 10042
  - mutation
    - chlorophyll 11006
    - hairs 11006
  - pollination 874
  - pollination, technique 6867
  - polyploidy 874, 2589
  - Pseudoperonospora* 6636, 8525
  - Pyrenochaeta* 2589
  - quality, for fresh consumption 5604, 8525
  - sex 2622, 7681, 11008
  - soil moisture 5604
  - Sphaerotheca* 876, 2589, 2822, 8525, 9249
  - sterility and fertility 8525, 8534
  - sterility, male 6849, 11007
  - taxonomy 11009, 11010
  - varieties
    - Taiwan 5606
    - USA 5602, 5603
  - variety trials
    - Australia 7680
    - Pakistan 6634
    - Tunisia 1520
  - Verticillium* 5602
  - viruses 2589, 5605, 8500, 11005
- Cucumis, melon × Cucumis, cucumber,**  
hybridization, interspecific 8534

**Cucurbita**

- Acalymma* 11020
  - andrecium, anatomy 6849
  - anther 1015
  - Aphis* 3693
  - Apis* 11016
  - breeding 873
    - Georgian SSR 7684
  - chemicals, as plant constituents
    - carotene 877
    - cucurbitacins 11020
    - protein 4631
    - starch 8668
  - chemicals, fertility and sex, effects
    - cysteine 879
    - ethephon 2626
    - glutamic acid 879
    - pyrogallol 880
    - salicylic acid 880
  - Diabrotica* 11020
  - embryo culture 11015
  - Erysiphe* 2590
  - fruit, colour 873
  - genetic resources 873
  - genetics 2620
    - protein 4631
    - sex 1548
    - sterility, male 5608
  - genetics, technique 4631
  - germplasm banks, USA 1547
  - history and evolution 10067
  - hybridization, interspecific 877, 2590, 4631, 11015, 11020
  - mutation 873
  - Peponapis* 11016
  - Pithitis* 878
  - pollen 4631
  - pollination 878, 11016, 11017
  - sex 879, 880, 1548, 2590, 2626, 10067
  - Sphaerotheca* 2590
  - sterility and fertility 878
  - sterility, male 1015, 5608, 6849, 8668
  - sterility, male, cytoplasmic 8668
  - taxonomy 11018, 11019
  - varieties
    - Florida 4630
    - USA 8498
  - vascular tissue 1015
  - viruses 881, 2590
- Cucurbita × Luffa**  
chemicals, fertility and sex, effects, *Luffa*  
extract 9251
- hybridization, intergeneric 9251
- sterility and fertility 9251
- Cucurbitaceae**  
chemicals, as plant constituents
  - oil, fatty 5600
  - protein 5600
- genetics, sex 5600
- pollen 5600
- seed 5600
- sex 5600

**Cucurbitaceae contd.**

taxonomy, review 5600

**Cucurbits**

- history and evolution 10067
- sex 10067

**Cultivars (see Varieties)****Cuphea**

- chemicals, as plant constituents, oil, fatty 4490, 4491
- chemicals, mutagenic effects, ethyl methanesulphonate 4490, 4491
- fasciation 4490, 4491
- flower 4490
- glands 4491
- habit 4490, 4491
- hairs 4490
- inflorescence 4491
- mutation, induced 4490, 4491
- shedding 4491

**Cupressus × Chamaecyparis, hybridization,**  
intergeneric 5530**Curcuma**

- chromosomes, number 34
- stomata 34
- variety trials, India 2462, 7530

**Currant (see Vitis)****Currant, black (see Ribes, black currant)****Currant, red (see Ribes, red currant)****Curvularia**

- Oryza* 2162
- Sorghum* 1193, 2794

**Cuttings**

- Arachis* 2435
- Corylus* 5508
- Gossypium* 2285
- Pinus* 790
- Psophocarpus* 6797
- Solanum*, potato 5253
- Stenotaphrum* 1254

**Cyamopsis**

- chemicals, as plant constituents
  - gum 1294, 7309
  - protein 1294
- combining ability 1292
- diallel analysis 1292
- endosperm 7309
- genetic variance 7309
- heat and drought resistance 10680
- heritability 1292
- heterosis 1292
- multivariate analysis 1292
- seed, colour 10680
- sowing and planting date 5242
- stability 9763, 10680
- yield components 1294

**Cycas, chromosomes, morphology, technique**  
791**Cydia**

- Cydonia* 4505
- Malus* 4505
- Phaseolus* 6731
- Pyrus* 4505
- Vigna*, cowpea 6740

**Cydonia**

- chemicals, as plant constituents
  - acids 4505, 6496
  - ascorbic acid 9113
  - carotene 7535
  - sugar 4505, 6496, 9113
- chromosomes, aberrations 697
- cold resistance 9114
- Cydia* 4505
- fruit, size 9113
- quality 6496
- quality, for storage 9113
- sterility and fertility 697
- variation 10855
- varieties, Ukrainian SSR 6495

**Cylas, Ipomoea** 1633, 1641, 5276, 9801**Cylas, technique, Ipomoea** 4366**Cylindrocarpon, Pinus** 4590**Cylindrocladium, Arachis** 3482, 5396,  
8376, 10830**Cylindrosporium**

- Brassica*, rape 6437
- Castanea* 6561

**Cymadothea, Trifolium, white clover** 4296**Cymbopogon**

- chemicals, as plant constituents
  - methyleugenol 3438, 6461
  - oil, essential 2445, 3484, 4492, 4493
- chromosomes, accessory 9084
- chromosomes, number 2444

**Cymbopogon contd.**

- development and growth 2445
- flowering 6464
- γ rays 2445, 4493
- habit 2445
- height 2445
- hybridization, interspecific 2444
- meiosis 2444, 9084
- mutation, induced 2445, 3484, 4493, 6461
- temperature, effect of 4492
- tillering 2445
- X rays 3484

**Cynara, globe artichoke**

- growth period 11072
- habit 8567
- leaf 8567
- seed production 2593
- variety trials, Spain 11072

**Cynodon**

- chemicals, as plant constituents
  - acid invertase 421
  - β-alanine 421
  - ascorbic acid 10629
  - chlorophyll 5174
  - flavonoids 10629
  - hexoses 421
  - protein 421
  - starch 5174
  - sucrose 421, 5174
  - sugars, reducing 5174
  - threonine 421
- chemicals, general effects, iron 8942
- chromosomes, number 421, 5173
- cold resistance 7242
- Helminthosporium* 3218
- history and evolution 10629
- hybrid varieties 5173
- meiosis 5173
- polyploidy 421, 5173, 10629
- quality, for nutrition 6201
- rhizome, number 5174
- Spodoptera* 2831
- spring deadspot 5174
- varieties, USA 3217, 3218, 5173
- variety trials, USA 10628
- vegetative reproduction 3217, 3218

**Cypress (see Cupressus)****Cytogenetics, book** 10195**Cytology** 9363

- Brassica*, review 6614
- Festuca*, review 7257
- Hordeum*, review 1161
- Oryza* 1207
- Vicia*, broad bean, review 10096

**Cytology, technique**

- Daucus* 8503
- Nicotiana*, review 2370

**Cytomixis**

- Secale* 3015, 7864
- Triticum* 1785, 7864

**Cytoplasm**

- Aegilops* 10394
- Lilium* 15
- Pisum* 6783
- Secale* × *Triticum*, triticales 13
- Solanum*, potato 7334
- Triticum* 13, 6901

**Cytoplasmic inheritance** 13, 4781, 9394

- Aegilops* 10394
- Aegilops* × *Triticum* 107, 109, 1767, 1775, 1873, 3899, 5872, 7897
- growth period 8728
- meiosis 10394
- spring and winter habit 8728
- sterility and fertility 10394
- vernalization 8728

*Arachis* 5392*Avena* 3993*Brassica* 853, 1533*Brassica*, rape 1406*Brassica* × *Raphanus* 853, 1531*Euchlaena* × *Zea*, maize 8022*Glycine* 4715, 4716, 8600*Gossypium* 4380, 6357*Hordeum* 8084, 8087*Lactuca* 2596*Lycopersicon* 916, 1517, 2596, 4648*Nicotiana* 605, 607, 5340, 6400

## adenosine triphosphatase 8332

## review 602

*Oryza* 6139*Petunia* 1004



**Cytoplasmic inheritance contd.**

- Phaseolus* 3858
- Phakopsora* 11107
- Raphanus* 853
- Secale* 1912
- Secale* × *Triticum* 1912
- Secale* × *Triticum*, triticale 4922
- Solanum*, egg plant 926
- Solanum*, potato 1314, 6298
- Triticum* 77, 107, 108, 109, 4856, 5844, 10257
- Leptosphaeria* 10368
- Puccinia* 7960
- Zea*, maize 285, 3077, 3858, 4017, 5992, 7034, 8026, 8027, 9524
- Cochliobolus* 8043
- hermaphroditism 8041
- Trichometasphaeria* 8830

**Cytospora**

- Prunus*, cherry 8408
- Prunus*, peach 7566

**Dactylis**

## breeding

- Czechoslovakia 1669
- Finland 7824
- Poland 9722, 9724
- USSR 2192

## breeding, technique 5151

- chemicals, as nutrients, nitrogen 419, 420, 4252, 9722

## chemicals, as plant constituents

- acid phosphatase 418
- chlorophyll 8939
- fructosan 4248
- glutamate oxaloacetate transaminase 418
- lignin 6869
- lignin, technique 7239
- malate dehydrogenase 418
- nitrogen 419, 420, 4252
- peroxidase 418
- protein 7231, 8934

## chemicals, fertility and sex, effects

- dimethyl sulphate 4254
- N*-nitroso-*N*-ethylurea 4254
- chemicals, general effects, sulphur dioxide 8935

## chemicals, mutagenic effects

- dimethyl sulphate 4254
- N*-nitroso-*N*-ethylurea 4254
- chromosomes, accessory 4253

## climate 6212

- cold resistance 1242, 4248, 6213, 7824, 8940, 9725

## combining ability 6209

## development and growth 6202

## diallel analysis 6209, 6210

## digestibility 6202, 6869, 7228, 7231

## digestibility, technique 5157

## ecotypes 3206, 10624

## embryo sac 4253

*Erysiphe* 6209

## experimental designs 1244

## fertilization, sexual 4253

## flowering 5169, 6211

## gene dosage

## chlorophyll 8939

## leaf, colour 8939

## genetic resources 2178

## genetics

## acid phosphatase 418

## chlorophyll 8939

## glutamate oxaloacetate transaminase 418

## leaf, colour 8939

## malate dehydrogenase 418

## peroxidase 418

## sterility, male, cytoplasmic 4254

## genotype × environmental interaction 1245

## geographical races 1242

## geography 6213, 9725

## growth period 1245, 6212, 8226

## heritability 1242

## hybridization 6207, 6208, 6213

## inflorescence, size 8226

## leaf, anatomy 5168

## leaf, colour 8939

## leaf, size 8226

## light, effect of 5151, 5157

## meiosis 4254

## mixtures of crops or genotypes 6208

## mowing and cutting 9722, 9723

**Dactylis contd.**

- multiple alleles 418
- palatability 7228, 7230, 7231, 9723
- persistence 5153
- photoperiodism 1245, 4248, 6211
- pollution, atmospheric 8935
- Puccinia* 6209
- quality, for nutrition 7230, 9723
- quality, technique 7239
- Rhizoctonia* 6209
- seasonal growth 5153
- seed production 5156
- silage 3210
- stability 9722
- stability, technique 1244
- sterility, male, cytoplasmic 4254
- temperature, effect of 1245, 5169
- varieties
- Czechoslovakia 3855
- Poland 53
- Switzerland 3207
- USSR 2192
- variety trials
- Canada 417
- Czechoslovakia 2193
- New Zealand 413
- vernalization 5151
- water balance 5168
- yield components 4250, 4251, 6209, 6210

**Dactylis × Festuca**

## hybridization, intergeneric 8222

## sterility and fertility 8222

**Date** (see *Phoenix*)**Datura**

- andrecium, anatomy 6849
- anther 1015
- anther culture 660, 7819, 9350
- cell culture 4790, 5407
- cell division 8381
- chemicals, as plant constituents
- nucleic acids 5407, 9350
- protein 5407
- starch 8668
- chemicals, fertility and sex, effects, GA 7527
- chemicals, general effects
- charcoal 660
- cycloheximide 8381
- sodium chloride 4790
- chromosomes, morphology 9095
- cold, effect of 7819
- haploidy 4790, 5407, 9350
- mixoploidy 9350
- mutation, induced 8381
- pollen 7527
- polyploidy 9350
- salinity 4790
- sterility, male 1015, 6849, 7527, 8668
- sterility, male, cytoplasmic 8668
- tissue culture 8381
- vascular tissue 1015

**Daucus**

- Alternaria* 835
- back crossing 9220
- breeding
- Kazakh SSR 9212
- Lithuanian SSR 9213
- Ukrainian SSR 9211
- USA 5545
- USSR 9208, 9210, 9215
- cell culture 838, 8503
- Cercospora* 835
- chemicals, as plant constituents
- acids 5550
- anthocyanins 5546
- carbohydrates 9226
- carotene 8502, 9227, 10983
- α-carotene 836, 6602, 6603
- β-carotene 836, 6602, 6603, 9226
- γ-carotene 6602, 6603
- ζ-carotene 6602, 6603
- carotenoids 837
- fructose 7658
- glucose 7658
- limonene 5549
- lycopene 836, 6603
- neurosporene 836, 6603
- nucleic acids 6599
- pectin 9227
- α-phellandrene 5549
- phenols 9226
- phosphorus 9226
- phytofluene 6602, 6603

**Daucus contd.**

## chemicals, as plant constituents contd.

- sucrose 5549
- sugar 837, 5550, 9226, 9227
- sugars, reducing 5549, 9226
- terpenoids 837
- terpinolene 5549
- volatile compounds 5549
- xanthophyll 6602
- chemicals, general effects
- S-2-aminoethylethylcysteine 10045
- 5-methyltryptophan 10045
- chemicals, mutagenic effects, ethyl methanesulphonate 838

## cold resistance 838

## combining ability 9220

## complementation 10045

## cytology, technique 8503

## environment 8504

*Erysiphe* 2587

## gene interaction 836

## genetic variance 5548

## leaf, number 10985

## leaf, size 10985

## leaf, weight 10985

## root, size 10985

## root, weight 10985

## genetics

## anthocyanins 5546

## α-carotene 6603

## β-carotene 6603

## γ-carotene 6603

## ζ-carotene 6603

*Erysiphe* 2587

## hairs 5546

## leaf, colour 5546

## lycopene 6603

## neurosporene 6603

## phloem, colour 5546, 6602

## phytofluene 6603

## root, colour 836, 5546, 6602

## xylem, colour 5546, 6602

## genotype × environmental interaction 837

## growth period 9226

## hairs 5546

## heritability 5548

## leaf, number 10985

## leaf size 10985

## leaf, weight 10985

## root, size 10985

## root, weight 10985

## heterosis 9224, 10984

## hybrid varieties 831, 832, 833, 834, 835

## hybridization 10970

## hybridization, interspecific 2587

## inbreeding 5547

## leaf, colour 5546

## leaf, number 5548, 10985

## leaf, size 5548, 10985

## leaf, weight 10985

*Leptosphaeria* 9208

## linkage 5546

*Macrosteles* 5551*Meloidogyne* 4604, 10986

## modifiers 5546

## molecular genetics 6599

## mutation, induced 10981

## phloem, colour 5546, 6602

## protoplast fusion 10045

*Psila* 5795, 6604, 9413, 10970*Pythium* 832

## quality, for canning 7657

## quality, for cooking 5549, 9220

## quality, for fresh consumption 837, 4602, 8504

## quality, for nutrition 6601

## quality, for pickling and salting 7657

## root, colour 836, 5546, 6602, 6603

## root, shape 4603, 5546

## root, size 4603, 5548, 10985

## root, texture 1523

## root, weight 5548, 10985

*Sclerotinia* 9208

## selection, artificial 8502

## stability 9223

## sterility, male 5547, 10970

## sterility, male, cytoplasmic 2587, 9220, 9224, 9225, 10970, 10984

## taxonomy 9208

## tissue culture 4601

## varieties

## Sweden 7657



**Daucus** *contd.*varieties *contd.*

- UK 9221, 9222, 10044
- USA 831, 832, 833, 834, 835
- USSR 9215

variety trials

- Denmark 3840
- USSR 821, 4318, 10983

viruses 5551

xylem, colour 5546, 6602

**Daucus - Vicia**, broad bean

protoplast fusion 1673

*Rhizobium* 1673**Defoliation, artificial***Glycine* 3760*Gossypium* 1336*Lolium* 3221*Solanum*, potato 3318*Zea*, maize 2001, 8826, 9572**Deletion** (see Chromosome translocation)**Delia***Allium*, onion 10972*Brassica* 5586, 6619*Brassica*, cabbage 5590*Brassica*, cauliflower 6619*Brassica*, Chinese cabbage 6619*Brassica*, red cabbage 6619**Density of stand***Allium*, onion 3656*Arachis* 2441*Avena* 3002, 7990*Bromus* 6219, 8943*Cajanus* 4765, 6811*Capsicum* 9907*Cicer* 3784

crop plants 5049

*Glycine* 2732, 3766, 4736, 5696, 6763, 6775, 10149, 11163*Gossypium* 4385, 6356, 9806, 10720*Helianthus*, sunflower 8369*Hevea* 7529*Hordeum* 5027, 5035, 5049, 6968, 8852*Medicago* 7277, 7280, 8253, 8954*Oryza* 7207, 9692*Phaseolus* 2689, 2694, 8575, 8578*Pinus* 10038*Pisum* 3839*Prunus*, cherry 8407*Saccharum* 10753*Secale* × *Triticum*, triticales 223*Sorghum* 5071, 9650*Trifolium*, red clover 2232, 5229*Trifolium*, subterranean clover 6266*Triticum* 170, 223, 1074, 1748, 1765, 1822, 2910, 2935, 5876, 5881, 5902, 6895, 6927, 6938, 6967, 6968, 10313, 10354*Vicia*, broad bean 939, 2668*Vigna*, cowpea 5666*Zea*, maize 262, 277, 1130, 1136, 1930, 1933, 1937, 1998, 2000, 3052, 3064, 4030, 4059, 5001, 5002, 5982, 6021, 8013, 8038, 8056, 8794, 8827, 9582, 10476, 10488*Zingiber* 10844**Depressaria**, *Apium* 6632**Deschampsia**

breeding, Czechoslovakia 1669

chemicals, as plant constituents, acid phosphatase 4246

chemicals, general effects, copper 4246

toxic soils 4246

**Designs, experimental** (see Experimental designs)**Desmodium**

centres of origin or diversity 2247

chemicals, as nutrients, nitrogen 5241

chromosomes, number 432

combining ability 5241

diallel analysis 5241

genetic resources 2247

genotype × environmental interaction 5241

heritability 5241

nitrogen fixation 5241

seedlings 5241

**Desynapsis***Corchorus* 7401*Festuca* 9734*Papaver* 6429*Phleum* 6215*Zea*, maize 4027

Deterioration during storage (see Quality, for storage)

**Determinate and indeterminate habit***Capsicum* 2452*Cucumis*, cucumber 8531*Glycine* 1594, 2725, 3760, 4736, 5695, 6763, 10140, 11143, 11155*Gossypium* 9813*Lycopersicon* 2639, 2646, 4643, 6655, 6656, 9258*Lycopersicon* × *Solanum* 8545*Phaseolus* 2689, 2699, 6704, 6711, 6719, 9295, 11096*Vicia*, broad bean 2681**Deuterophoma***Citrus* 9956*Citrus*, lemon 720, 721, 3570, 3571, 9953, 9955, 9956, 9971, 10219

physiological races 1463

*Citrus*, lemon × *Poncirus* 10890*Citrus*, mandarin 720, 721, 3571, 10219*Citrus*, orange 720, 3571**Deuterophoma, technique**, *Citrus*, lemon 3569**Development, abnormal***Amaranthus* 1564*Cajanus* 2756*Elaeis* 2431*Helianthus*, sunflower 5377*Lycopersicon* 1517*Malus* 2482*Oryza* 364*Phaseolus* 6713*Solanum*, egg plant 5635**Development and growth***Acca* 10215*Aegilops* × *Triticum* 1067*Agrostis* 4240*Alnus* 3630*Arachis* 1415, 8373*Avena* 10402*Beta*, sugar beet 2345, 2346, 4413, 4416, 9843*Brassica*, Brussels sprouts 3685*Brassica*, rape 6434, 6436, 10809*Camellia* 9046

cereals 1706

*Cicer* 5710, 11186*Citrus*, lemon 2503*Citrus*, mandarin 2503*Citrus*, orange 2503, 8416*Collybia* 3801*Coriandrum* 11200*Cymbopogon* 2445*Dactylis* 6202*Elaeis* 7500*Elymus* 6235*Festuca* 4240, 5194, 6202*Glycine* 2725, 6764, 6777, 7775, 9313, 11147, 11150, 11155*Gossypium* 540, 9003*Hevea* 6470*Hippophae* 4560, 4561*Hordeum* 1158, 1165, 3107, 8087, 8102, 8841*Hordeum* × *Secale* 8112*Juglans* 7618*Kochia* 478*Lactuca* 10975*Lens* 11189*Linum* 5312*Lolium* 2195, 4261, 5179, 6202, 9732*Mangifera* 3581*Medicago* 450, 1262, 3258, 9749*Morus* 734, 2511*Nicotiana* 603, 4438*Oryza* 357, 4210, 6154, 7193, 9690*Pennisetum* 8874*Phleum* 6202*Picea* 10964*Pinus* 8480, 9196*Pisum* 10165*Populus* 796, 6574, 7629, 10025*Prunus*, peach 4531, 5446*Prunus*, plum 3549, 9940*Pseudotsuga* 6595*Quercus* 9175*Raphanus* 841, 5554*Ribes*, black currant 10915*Secale* 9514*Secale* × *Triticum*, triticales 1845*Solanum*, potato 3316, 8279*Sorghum* 339, 340, 1036, 5076, 7156**Development and growth** *contd.**Trifolium* 7291*Trifolium*, red clover 5227*Trifolium*, subterranean clover 4298*Triticum* 79, 85, 147, 1707, 1760, 1845, 2912, 2921, 2931, 2933, 3926, 5886, 6936, 6947, 7923, 9458, 10320*Vicia*, broad bean 3727*Vigna*, cowpea 8591*Vigna*, minor species 953, 5672*Vitis* 2549, 8446, 9162*Zea*, maize 246, 1036, 1128, 1952, 1968, 3047, 4040, 4067, 4068, 5002, 6022, 6036, 6043, 7055, 7058, 8816, 9558, 9577, 10466, 10467, 10476*Zizyphus* 6540**Diabrotica***Cucumis*, cucumber 9419*Cucumis*, melon 7682*Cucurbita* 11020*Zea*, maize 1920, 5015, 10474**Diallel analysis** 4778, 4782, 5725, 6827*Avena* 226, 1903, 3005*Brassica*, oil crops 2399, 4459*Brassica*, rape 3457, 3461*Cajanus* 3798*Cicer* 2750, 3788, 4757, 5709*Corchorus* 3380

crop plants 3848, 6861, 10225

*Cucumis*, cucumber 3699*Cucumis*, melon 4627*Cyamopsis* 1292*Dactylis* 6209, 6210*Desmodium* 5241*Glycine* 4728*Gossypium* 529, 1340, 2288, 2311, 4393, 5283*Helianthus*, sunflower 1409, 10819*Hibiscus* 2326*Lolium* 425*Lotus* 4309, 4310*Lycopersicon* 7706*Nicotiana* 1374*Oryza* 377, 1213, 1218, 5127*Papaver* 2396*Pennisetum* 2064, 4111*Phalaris* 3228*Picea* 813*Pinus* 6582*Pisum* 1599, 2741, 3777, 6785*Pyrus* 3507*Saccharum* 7411*Secale* 3019, 8785*Secale* × *Triticum*, triticales 1881*Sesamum* 5375*Solanum*, egg plant 927, 1563, 2658*Sorghum* 2088, 2094, 4128, 4129, 4131, 9642*Spinacia* 872*Trifolium*, white clover 5231*Triticum* 110, 142, 152, 1799, 1808, 2882, 2898, 2952, 2959, 2975, 2976, 3877, 3898, 3922, 3925, 3935, 3939, 4887*Puccinia* 9490*Vicia*, broad bean 2676, 2677, 2682, 3725*Zea*, maize 282, 1928, 3037, 3044, 3054, 4018, 4952*Zea*, sweet corn 4076**Diaphania**, *Cucumis*, cucumber 888**Diaporthe**, *Glycine* 3746, 4740**Diatraea***Sorghum* 4173, 8145*Zea*, maize 1920, 3083, 4072, 5011, 6067, 10422, 10508**Dictionary**, botany 10197**Didymella***Cucumis*, melon 11011*Lycopersicon* 10978*Rubus*, raspberry 3499, 5468, 5469, 10905**Differentiation** (see Development and growth)**Digestibility***Avena* 1902, 7868, 7984*Brassica*, kale 6869*Bromus* 6219, 8943*Dactylis* 6202, 6869, 7228, 7231*Eragrostis* 8244*Festuca* 6202, 7228, 8947*Festuca* × *Lolium* 4262

grasses 4244



**Digestibility contd.**

- Hemarthra* 2207, 8249  
*Hordeum* 7107, 7868, 7984, 8702  
*Lolium* 6202, 7228, 7251  
*Medicago* 2216, 4277, 6869, 7279, 7280, 7281, 7285  
*Oryza* 6164  
*Panicum* 4244, 9625  
*Paspalum* 6201  
*Pennisetum* 6201, 9633, 10559  
*Phalaris* 3228, 4268  
*Phleum* 6202, 7228  
*Secale* 7984, 9514  
*Secale* × *Triticum*, triticales 7984  
*Setaria* 10557  
*Sorghastrum* 4243, 8248, 9743  
*Sorghum* 6127, 6201, 7147, 8136, 8137, 8140, 10578  
*Trifolium*, red clover 4277  
*Trifolium*, white clover 7230  
*Tripsacum* 2015  
*Triticum* 7868, 7984, 8702  
*Vicia*, broad bean 941  
*Zea*, maize 3059, 3060, 8051, 8702

**Digestibility, technique**

- Dactylis* 5157  
*Festuca* 7264  
 grasses 5158, 5785  
*Lolium* 5157  
*Medicago* 3243  
*Sorghum* 7144, 7145, 7146  
*Triticum* 2951

**Digitaria**

- bolting 9912, 9914  
*Botrytis* 9912, 9914  
 breeding, Netherlands 9912, 9914  
 chemicals, as plant constituents  
   digoxin 9912, 9914  
   lanatoside C 9913, 9915, 9916, 9918, 10846  
 chromosomes, number 7848  
 cold resistance 9915, 9916  
 heterosis, lanatoside C 9915, 9916  
 inbreeding 9913  
 selection, artificial 9913  
*Septoria* 9912, 9914  
 varieties, German Democratic Republic 9918, 10846

**Digitaria**

- chemicals, as plant constituents, esterase 6231  
 hybridization, interspecific 6231

**Digitaria (weed)**

- Festuca* 9737  
 germination 9737

**Dill (see Anethum)****Dioscorea**

- breeding, Nigeria 2250  
*Cercospora* 1635  
 chemicals, as plant constituents  
   calcium 2360  
   diosgenin 6396, 9031  
   magnesium 2360  
   nitrogen 2360  
   phosphorus 2360  
   potassium 2360  
   protein 2360  
 dormancy 5338  
 genetic resources 6853  
 germplasm banks 7843  
   Cameroon 7844  
 germplasm banks, technique 7818  
*Meloidogyne*, physiological races 3874  
 pathology 1296  
 quality, for cooking 1635, 9033  
 scorch 1635, 9033  
 tissue culture 7818, 9031  
 tuber, weight 5338

**Diospyros**

- genetic resources 10849  
 grafting 1467  
 varieties, Japan 3857

**Diplocarpon, Fragaria** 10925**Diplodia (see also Physalospora)**

- Zea*, maize 1137, 6056

**Diplodiella, Oryza** 8202**Diploidy**

- Medicago* 3264, 6246  
*Phleum* 9718  
*Prunus*, cherry 5412  
*Solanum*, potato 493, 4339, 4789, 6304, 7835, 7836  
*Triticum* 1778

**Diploxaxis**

- germination 3665  
 hybridization, interspecific 3665  
 sterility and fertility 3665  
 sterility, male, cytoplasmic 857

**Disease lesion, Zea, maize** 7067, 7068**Distribution (see Geography)****Ditylenchus**

- Allium*, onion 4611  
*Avena* 3872  
*Medicago* 453, 455, 1274, 3242, 3276, 3872, 4291, 10656  
*Solanum*, potato 7353, 8986, 9793  
*Trifolium*, red clover 1282, 6264

**Dodonaea** × *Citrus*, hybridization,

- intergeneric 2464

**Dolichos (see Lablab; Macrotyloma)****Dominance** 1005

- Gossypium* 2288

- Triticum* 152

**Dormancy**

- Arachis* 2435  
*Avena* (weed) 1900  
*Brassica* 3676  
   review 863  
*Carya* 1494  
*Citrus*, lemon 721  
*Citrus*, mandarin 721  
*Dioscorea* 5338  
*Eleusine* 3139  
*Euchlaena* 9598  
*Helianthus*, sunflower 638  
*Hordeum* 1709, 4081, 4091, 8111  
*Lactuca* 7677, 10975  
*Larix* 5542  
*Lycopersicon* 3711  
*Mangifera* 3581  
*Medicago* 3249  
*Oryza* 2148, 6161  
*Panicum* 321  
*Phleum* 2194  
*Prunus*, apricot 10878  
*Prunus*, plum 669  
*Quercus* 9175  
*Secale* 1911, 8790, 10420  
*Secale* × *Triticum*, triticales 2990, 5948  
*Solanum*, potato 1310, 1311, 6312, 6315, 8283, 10691  
*Sorghum* 7151, 8138  
*Triticum* 142, 148, 1077, 1709, 1754, 1789, 1814, 2850, 3951, 6911, 7889, 9445, 9478  
*Zea*, maize 4981

**Dormancy, technique, Triticum** 1076,

- 3927, 10321

**Douglas fir (see Pseudotsuga)****Drechslera**

- cereals, physiological races 8705  
 genetics, cereals 8705  
*Lolium* 7246  
*Oryza* 4220  
*Poa* 5163, 6205, 8230  
*Saccharum* 1687, 4411, 5317, 5322  
*Sorghum* 4160

**Drechslera, technique, Saccharum** 9025,

- 9839

**Drought resistance (see Heat and drought resistance)****Drying quality (see Quality, for drying)****Duplicate genes (see Multiple genes)****Dwarf habit (see Height)****Dysaphis, Malus** 5795**Dysdercus, Gossypium** 9823**Ear (see Inflorescence)****Earias**

- Gossypium* 3373, 8996  
*Hibiscus* 2328, 9835

**Earliness (see Growth period; Seasonal growth)****Echinochloa**

- chemicals, as plant constituents, α-amylase inhibitor 6112  
 chemicals, general effects, propanil 2847  
 germplasm banks, India 7121  
*Ustilago* 2073

**Ecology, Oryza** 3178**Ecotypes** 9362

- Acer* 2563  
*Agrostis* 6214  
*Alnus* 2563  
*Betula* 2563  
*Brassica*, rape 9054  
*Cenchrus* 2199

**Ecotypes contd.**

- Corylus* 2563  
*Dactylis* 3206, 10624  
*Festuca* 3206, 9736, 10624  
*Lolium* 3206, 4261  
*Lotus* 5238  
*Oryza* 2128  
*Phalaris* 10624  
*Phleum* 2194, 3206, 5172  
*Picea* 2563, 3647  
*Poa* 2188, 9721  
*Quercus* 1500, 6570  
*Salix* 2563  
*Stylosanthes* 4314  
*Trifolium*, white clover 10624  
*Ulmus* 2563  
*Vicia*, vetch 1287  
*Vigna*, minor species 8596

**Egg plant (see Solanum, egg plant)****Elaeagnus**, polymorphism 6564  
 varieties, USA 4559**Elaeis**

- breeding, India 30  
 chemicals, as plant constituents  
   fatty acids 9074, 9894  
   glycerides 9894  
   oil, fatty 9074, 9894, 9895  
 chemicals, fertility and sex, effects, 2,4,5-trichlorophenoxypropionic acid 2431  
 development, abnormal 2431  
 development and growth 7500  
*Fusarium* 2432, 8371  
 genetic resources 2430  
 genetic variance, yield components 7498  
 height 7500  
 heritability, yield components 7498  
 hermaphroditism 2431  
 hybridization, interspecific 2429, 7499, 8371, 9894  
 inflorescence 2431  
 maternal effects, *Fusarium* 8371  
 parthenocarp 2431  
 sex 2431  
 sterility and fertility 7499  
 tissue culture 9074  
 variation 2429  
 yield components 7498, 7500

**Electrical properties**

- Agropyron* × *Triticum* 164  
*Populus* 5518, 9181  
*Triticum* 164, 5912, 5915  
*Zea*, maize 4021

**Electricity, effect of, Lycopersicon** 893**Electrons, Hordeum** 7091**Elettaria**

- pollination 32  
 stem, number 32

**Eleusine**

- anatomy 6119  
 chemicals, as nutrients  
   nitrogen 9637  
   potassium 9637  
 chemicals, as plant constituents  
   aminoacids 2075  
   α-amylase inhibitor 6112  
   carbohydrates 2075  
   oil, fatty 2075  
   protein 2075  
   vitamins 2075  
 chemicals, fertility and sex, effects, ethyl methanesulphonate 329  
 chromosomes, morphology 328  
 colour 9636, 10566  
 dormancy 3139  
 foliage area 3138, 9637  
 fungi 330  
 γ rays 329, 2074  
 genetics  
   colour 9636  
   inflorescence, shape 9636  
 genotype × environmental interaction 327  
 germplasm banks, India 7121  
 growth period 2074, 10566  
 height 2074  
 history and evolution 328, 3139  
 inflorescence 2074, 10566  
 inflorescence, shape 9636  
 mutation, induced 2074  
 neutrons 2074  
 photosynthesis 3138  
 physiology 9637  
 quality, for nutrition 5720



**Eleusine contd.**

- seed, colour 330, 10566
- Sesamia* 6119
- sterility and fertility 329
- translocation, physiological 3138
- varieties, India 3137
- variety trials, India 326
- viruses 5068
- yield components 2074, 5067, 9636

**Elm (see *Ulmus*)****Elsinoe**

- Manihot* 9368
- Rubus*, raspberry 3499, 4546
- Vigna*, cowpea 1637
- Vitis* 3616, 9168, 10015, 10940

**Elymus**

- awns, length 10647
- breeding
  - Kazakh SSR 8221
  - USSR 3205
- chemicals, as plant constituents, protein 8247
- chemicals, mutagenic effects, ethyl methanesulphonate 10647
- chromosomes, morphology 125
- cold resistance 2205
- development and growth 6235
- $\gamma$  rays 10647
- genetic variance 6235
- genome analysis 8247
- germination 430, 6235
- heat and drought resistance 430
- history and evolution 8247, 10209
- mutation, induced, awns, length 10647
- pollen 9408
- pollen, size 4272
- polyploidy 4272, 9408
- stomata, number 9408
- stomata, size 9408
- synthetic varieties 5200
- taxonomy 8247
- varieties, Canada 5200
- variety trials
  - Canada 429
  - USSR 2205

***Elymus*  $\times$  *Agropyron*, hybridization, intergeneric 7269, 9741*****Elymus*  $\times$  *Hordeum***

- genome analysis 10244
- hybridization, intergeneric 8837, 10244, 10521
- meiosis 10244
- viruses 8837

***Elymus*  $\times$  *Triticum***

- chromosomes, morphology 125
- genome analysis 10244
- height 115
- hybridization, intergeneric 115, 118, 125, 10244
- lodging 115
- meiosis 10244
- quality, for milling and baking 115
- sterility and fertility 115

**Embryo**

- Brassica*, rape 4458
- Capsicum* 9090
- Lupinus* 471
- Pinus* 6585
- Pisum* 3839

***Secale* 10418**

- Secale*  $\times$  *Triticum* 10297
- Trifolium*, Alsike clover  $\times$  *Trifolium*, minor species 1276
- Trifolium*, Alsike clover  $\times$  *Trifolium*, white clover 1276
- Trifolium*, minor species  $\times$  *Trifolium*, white clover 1276
- Zea*, maize 267, 1040, 1988, 4032, 5998, 6007, 8031, 8807

**Embryo, colour**

- Brassica*, rape 4456
- Zea*, maize 4961

**Embryo culture 9391**

- Allium*, onion 4607
- Arachis* 7512
- Avena* 4823
- Brassica*, cabbage  $\times$  *Raphanus* 2606
- Brassica*, rape  $\times$  *Raphanus* 2606
- Brassica*, turnip  $\times$  *Raphanus* 2606
- Cannabis* 4399
- Carica* 7577
- Citrus*, lemon 3576
- Cocos* 7575

**Embryo culture contd.**

- Cucumis* 10977
- Cucurbita* 11015
- Festuca* 5155
- Gossypium* 531, 3346
- Hordeum* 2043, 2054, 7097, 8847
- Hordeum*  $\times$  *Secale* 3098, 7089, 8093
- Hordeum*  $\times$  *Triticum* 2897, 3907
- Lablab*  $\times$  *Macrotyloma* 9408
- Lolium* 3224, 5155
- Lotus* 5207
- Medicago* 5216
- Nicotiana* 591
- Ornithopus* 5207
- Phaseolus* 9291
- Phoenix* 739
- Prunus*, almond 3620
- Ribes*, red currant 744
- Secale* 7996
- Secale*  $\times$  *Triticum* 2911
- Secale*  $\times$  *Triticum*, tritcale 217, 1895, 3982, 6999
- Secale*  $\times$  *Triticum*, tritcale  $\times$  *Hordeum* 2889
- Solanum*, egg plant 4660
- Theobroma* 628
- Trifolium* 5207
- Trifolium*, Alsike clover 9753
- Trifolium*, minor species  $\times$  *Trifolium*, Alsike clover 6265
- Triticum* 1801, 9470
- Zea*, maize 253, 4032, 4823, 6008, 8036, 8047, 9577

**Embryo sac**

- Cenchrus* 7267
- Cucumis*, cucumber 882
- Dactylis* 4253
- Gossypium* 8305
- Holcus* 6239
- Hordeum* 3103
- Panicum* 6111
- Paspalum* 2198
- Prunus*, plum 7562, 8397

**Embryo, size**

- Hibiscus* 7403
- Sorghum* 2093

**Embryo, weight**

- Sorghum* 335
- Zea*, maize 4056, 4057

**Embryology**

- crop plants 10231
- Holcus* 6239
- Ribes* 8424
- Ribes*, black currant 7585
- Triticum* 2941

**Empoasca**

- Phaseolus* 6731, 8589, 10098
- Solanum*, potato 517, 6336, 10700
- Vigna*, cowpea 3740, 11112

***Encyrtolophus*, *Medicago* 3239****Endive (see *Cichorium*, eadive)*****Endocronartium*, *Pinus* 9201****Endomitosis**

- Oryza* 8165
- Pisum* 975
- Vigna*, minor species 2707

**Endopolyploidy (see Endomitosis)****Endosperm**

- Capsicum* 9090
- Cyamopsis* 7309
- Hordeum* 1030, 2049, 4100, 8068
- Malus* 2475
- Picea* 9204
- Secale*  $\times$  *Triticum*, tritcale 1108
- Solanum*, potato 6307
- Sorghum* 1030, 3151, 8138, 9642
- Trifolium*, Alsike clover  $\times$  *Trifolium*, minor species 1276
- Trifolium*, Alsike clover  $\times$  *Trifolium*, white clover 1276
- Trifolium*, minor species  $\times$  *Trifolium*, white clover 1276
- Triticum* 79, 1077, 2944, 3938, 4873
- Zea*, maize 267, 1030, 1037, 3047, 4024, 4032, 6007, 6009, 10428, 10464
- Zea*, sweet corn 3084, 9596

**Endosperm, anatomy**

- Hordeum* 2040
- Zea*, maize 4965

**Endosperm, colour**

- Hordeum* 6091
- Zea*, maize 3034, 4957, 4961, 7035

**Endosperm, texture**

- Oryza* 3184, 6164, 7195, 9689
- Sorghum* 1188, 9644
- Triticum* 5900, 6956
- Zea*, maize 270, 274, 3057, 4046, 4053, 5001, 5999, 6047, 6048, 7058, 7061, 8047, 9579, 10425, 10437, 10503

**Endosperm, variegation, *Zea*, maize 4955, 4956, 4957, 4958****Endosperm, weight, *Zea*, maize 4056, 4057*****Endothia*, *Castanea*, physiological races 2558****Entyloma**

- Oryza* 8919
- Vigna*, cowpea 4700

**Environment**

- Avena* 7006, 8783
- Daucus* 8504
- Fragaria* 6537
- Gossypium* 6341
- Helianthus*, sunflower 9891
- Hordeum* 2032, 8114, 8700
- Secale* 233
- Solanum*, potato 3316, 8973
- Sorghum* 8137
- Triticum* 169, 6949, 8700
- Vigna*, cowpea 8591
- Vitis* 8445, 8446, 8447

**Ephestia**

- Secale*  $\times$  *Triticum*, tritcale 5954
- Sorghum* 3155

**Epidermis**

- Cucumis*, cucumber 11030
- Gossypium* 5296

***Poa* 6206*****Salix* 5529*****Sorghum* 6201****Epidermis, colour, *Lycopersicon* 2642*****Epilachna*, *Glycine* 7778*****Epinotia*, *Phaseolus* 6731****Epistasis 11014*****Cucumis* 8538*****Helianthus*, sunflower 10819*****Medicago* 10667*****Sorghum* 8133*****Triticum* 8712, 9466, 10316*****Zea*, maize 6048, 7061, 10437*****Epitrix*, *Nicotiana* 5356****Eragrostis**

- chemicals, as plant constituents, protein 9738
- cold resistance 6232
- digestibility 8244
- growth period 9738
- hybridization, interspecific 6232
- inflorescence 9738
- Meloidogyne* 9739
- soil stabilization 6232
- spikelets 4269
- taxonomy 4269, 4270
- varieties, USA 5198, 6232

***Eremopogon***

- apomixis 6240
- pollen 6240

***Eremopyrum* (see *Agropyron*)****Ergot (see *Claviceps*)****Erianthus**

- genetic resources 7408
- germplasm banks, USA 7408

***Erianthus*  $\times$  *Saccharum***

- aneuploidy 7416
- chemicals, cytological effects, colchicine 7416
- hybridization, intergeneric 7416
- polyploidy 7416
- sterility and fertility 7416
- tissue culture 7416

**Eriophyes**

- Medicago* 5225, 8956
- Triticum* 4919

***Eriosoma*, *Malus* 1432, 10865****Eruca**

- chemicals, as plant constituents
  - glucosinolates 10054
  - sinigrin 10054
  - wax 10054
- Lipaphis* 10054
- vascular tissue 10054

***Eruca*  $\times$  *Brassica*, hybridization, intergeneric 3665****Erwinia**

- Brassica*, cabbage 828, 1539
- Brassica*, Chinese cabbage 1642



**Erwinia contd.**

- Citrus*, orange, physiological races 1460
- Cucumis*, cucumber 5610
- immunology 507
- Lycopersicon* 8557
- Malus* 1430, 1432, 1438, 3528, 4517
- review 678
- Prunus*, plum 7563
- Pyrus* 1438, 3498, 3510, 4522
- review 678
- Solanum*, potato 508, 1317, 2271, 5258, 8295
- physiological races 10696
- Poland 507
- Zea*, maize 3070, 4946, 10491

**Erwinia, technique, *Panicum* 4108****Erysiphe**

- Aegilops* × *Triticum* 10308
- Avena* 5819, 5958, 5963
- physiological races 5969, 8784
- Beta*, sugar beet 3395, 9030, 9845, 9846
- Brassica* 5575
- Brassica*, kale × *Raphanus* 3662
- Brassica*, rape 7837
- Brassica*, swede 3309
- cereals 4829
- Cucumis*, melon 5606
- Cucurbita* 2590
- Dactylis* 6209
- Daucus* 2587
- genetics, *Triticum* 10376
- Haynaldia* 3877
- Hibiscus* 9833
- Hordeum* 314, 1147, 1152, 2060, 2822, 2829, 2852, 3111, 3878, 4081, 4086, 5045, 5053, 5056, 5057, 5819, 6104, 6105, 7099, 8073, 8077, 8078, 8125, 8706, 8852, 8868, 8870, 8871, 9600, 10241, 10550, 10551, 10552
- physiological races 3125, 7083, 7114, 9617
- Denmark 8869
- India 7113
- Latvian SSR 6106
- Poland 7115
- mutation 6104
- Nicotiana* 589, 618, 1385, 3833, 6415, 7467, 9034, 9044, 9851, 9852, 10774
- Pisum* 2744, 2745, 2829, 7789, 9328, 9329
- Poa* 4249, 5163, 6205
- Secale* × *Triticum*, triticales 5949, 6991
- Solanum*, potato 8982
- Trifolium*, red clover 1282, 3285, 6260
- Triticum* 111, 198, 199, 1841, 1847, 2881, 2883, 2964, 2967, 3877, 3911, 3959, 4829, 4889, 4898, 5819, 5834, 5838, 5840, 5842, 5865, 5916, 5921, 6912, 6915, 6973, 7821, 7879, 7883, 7902, 7909, 7956, 8706, 8710, 8723, 8755, 8762, 9440, 9441, 9445, 10257, 10276, 10375, 10377, 10378, 10379
- physiological races 4894, 5925, 6979, 7957, 7958, 8763, 10376
- Brazil 2968
- Canada 4838
- Czechoslovakia 3967
- USSR 5926
- Yugoslavia 2966
- Vigna*, cowpea 933
- Vigna*, minor species 933, 1644, 2703, 6744, 6746, 6747

**Erysiphe, technique**

- Brassica*, swede 4322
- Hordeum* 3126
- Nicotiana* 2378

**Essential oil plants**

- breeding, Ukrainian SSR 9904
- genetic resources 2443
- germination 9902

**Etiella, *Glycine* 1645****Eucalyptus**

- anatomy 8469
- breeding, Italy 3623
- chemicals, as plant constituents, flavonoids 3631
- flowering 7632
- heritability
- anatomy 8469
- quality, of timber 8469
- specific gravity 8469
- heterosis 6581
- heterozygosis 800

**Eucalyptus contd.**

- hybridization, interspecific 6581, 7632, 8467, 8468, 8470
- inbreeding 800
- outcrossing 800
- plant introduction
- from Australia 798
- to Mexico 798
- precocity of bearing 6581
- provenance trials
- Mexico 798
- Pakistan 799
- quality, of timber 8469
- specific gravity 8469
- taxonomy 8470
- tissue culture 3632

**Euchlaena**

- apomixis 1129
- centres of origin or diversity 9580
- chemicals, as plant constituents
- catalase 1129
- enzymes 6052
- esterase 1129
- globulin 6052
- nucleic acids 1943, 9531, 9581, 10438
- peroxidase 1129
- 6-phosphogluconate dehydrogenase 6052
- prolamin 10242
- protein 1129
- chloroplasts 9531, 10438
- chromosomes, aberrations 10513
- chromosomes, morphology 1129, 7065, 9598, 10513
- cold resistance 8048
- dormancy 9598
- geography 7065
- history and evolution 7065, 9580
- history and evolution, technique 10242
- hybridization, interspecific 9597
- inflorescence, length 9595
- meiosis 244, 9598, 10513
- molecular genetics 9531, 10438
- mycoplasmas 2013
- perennial habit 9598, 10513
- pollen, size 9570
- polyploidy 10513
- taxonomy 8053, 9580
- tissue culture 9559
- viruses 4074

**Euchlaena × *Zea*, maize**

- aneuploidy 243
- chemicals, as plant constituents
- catalase 1129
- esterase 1129
- lysine 7041
- nucleic acids 8022
- peroxidase 1129
- protein 1129, 7041
- chromosomes, addition and substitution 9544
- chromosomes, number 244
- cold resistance 7049
- cytoplasmic inheritance 8022
- forage 245
- Gibberella* 9545
- growth period 9545
- heat and drought resistance 245
- hybridization, intergeneric 240, 243, 244, 245, 1129, 4072, 7041, 7049, 8022, 8048, 9544, 9545, 9580, 9598
- inflorescence, number 9545
- Khuskia* 9545
- meiosis 244, 1129
- molecular genetics 8022
- nucleolus 243
- Ostrinia* 9545
- seed, size 9545
- seed, weight 9545
- silage 245, 9545
- Spodoptera* 4072
- sterility and fertility 243, 244, 9580
- tillering 9545
- Ustilago* 9545
- white ear 9545
- yield components 9545

**Eurygaster, *Secale* × *Triticum*, triticales 10400****Eurytoma**

- Prunus*, cherry 6498
- Prunus*, plum 6498
- Euschistus*, *Glycine* 2738, 10153
- Eutypa*, *Vitis* 8452

- Evolution, general theory 14, 24, 1006, 2788, 2791, 3811, 3816, 5750, 8663, 9344
- forest trees 2561
- Zea*, maize 1134
- Exomalopsis*, *Lycopersicon* 11044
- Experimental designs 1622, 5727, 7807
- Arachis* 7506
- crop plants 1665, 3027, 4805, 6873, 9400
- Dactylis* 1244
- forest trees 1498
- Fragaria* 1476
- Glycine* 2713, 2715
- Gossypium* 10705
- grasses 411
- Helianthus*, sunflower 10818
- Hordeum* 4805, 6071
- Juglans* 8454
- Lolium* 411
- Medicago* 2213
- Nicotiana* 6402
- Pinus* 7635
- Solanum*, potato 4346
- Sorghum* 7859
- Triticum* 1731, 2867, 2876, 5832, 8712
- Vicia*, broad bean 6694
- Vigna*, minor species 1622
- Vitis* 767
- Zea*, maize 3027, 5988, 8959
- Fabraea*, *Pyrus* 7555
- Fagopyrum**
- altitude 6196
- andrecium, size 1241
- aneuploidy 8926
- breeding
- symposium 8924
- USSR 4228, 8927
- book 404
- Yugoslavia 8931
- centres of origin or diversity 6196
- chemicals, as plant constituents
- aminoacids 8932
- ascorbic acid 4232
- carbohydrates 8932
- chlorophyll 4229, 4232
- nitrogen 8931
- protein 3203, 8930, 8933
- chemicals, fertility and sex, effects
- actinomycin D 3202
- cadmium 3202
- kinetin 3202
- chemicals, mutagenic effects
- dimethyl sulphate 408
- ethyl methanesulphonate 408
- ethyleneimine 408
- miscellaneous 9716
- N*-nitroso-*N*-ethylurea 408
- N*-nitroso-*N*-methylurea 408
- cold resistance 4232
- flower, number 9716
- flowering 8928, 9716
- γ rays 408
- genetics
- andrecium, size 1241
- gynecium, size 1241, 10621
- heterostyly 1241, 5149, 8925, 10621
- sterility, female 8929
- sterility, male 8929
- sterility, self 5149, 8925
- geography 6196
- growth period 4231, 6196, 9716, 9717
- gynecium, size 1241, 10621
- habit 9715, 9716
- heat and drought resistance 4232
- height 409
- heterosis 8927
- heterostyly 1241, 3203, 5149, 8925, 8926, 8930, 10207, 10621, 10622
- history and evolution 6196, 8933
- hybridization, interspecific 3202, 8933, 9421
- inflorescence 8928, 9716
- leaf, colour 4229
- mutation 4229
- mutation, induced 408
- growth period 9716
- inflorescence 9716
- nectar 410
- polyploidy 4230, 8926, 8931, 8932
- quality, for milling and baking 408
- quality, for nutrition 8932
- seed production 9715
- seed, shape 6196
- seed, weight 5149



**Fagopyrum contd.**

- seedlings, colour 4229
- sterility and fertility 1241, 3202, 10622
- sterility, female 4229, 8929
- sterility, male 8929
- sterility, self 406, 3204, 5149, 8925, 8926, 10621
- synthetic varieties 8927
- varieties, USSR 405, 4230
- vivipary 407
- yield components 408, 8928, 9717

**Fagus**

- altitude 8464
- anatomy 5521
- breeding, Georgian SSR 5512
- chemicals, as plant constituents
  - acid phosphatase 6579
  - leucine aminopeptidase 6579
- flower 2570
- genetic variance, quality, of timber 8465
- genetics
  - acid phosphatase 6579
  - leucine aminopeptidase 6579
- heritability, quality, of timber 8465
- leaf 5522
- multiple alleles 6579
- quality, of timber 8465
- seed, weight 5522, 8464
- seedlings, size 8464
- taxonomy 2570
- variation 2570

**Fasciation**

- Amaranthus* 1564
- Cuphea* 4490, 4491
- Lactuca* 6626, 10975
- Pisum* 974
- Sesamum* 4469

**Feijoa (see Acca)****Female sterility (see Sterility, female)****Fennel (see Foeniculum)****Fertility (see Sterility and fertility)****Fertilization, sexual**

- Actinidia* 2538
- Aegilops* 7971
- Dactylis* 4253
- Lycopersicon* 9268
- Medicago* 8255
- Oryza* 10597
- Panicum* 320
- Pisum* 7782, 7785
- Secale* × *Triticum* 5856
- Solanum*, potato 2260
- Sorghum* 6125
- Triticum* 2892, 2941
- Zea*, maize 1964, 4042, 4043

**Fertilization, sexual, technique, Zea, maize**

6044

**Fertilizers (see Chemicals, as nutrients)****Fescue (see Festuca)****Festuca**

- agronomy, book 7255
- altitude 9736
- anatomy, review 7256
- aneuploidy 7257
- anther culture 426, 5155, 5193
- apomixis 2790
- breeding
  - Czechoslovakia 1669
  - Finland 7824
  - review 7258
- breeding, technique 4236
- centromere, size 4264
- chemicals, as nutrients, nitrogen 8948
- chemicals, as plant constituents
  - alkaloids 7234
  - calcium 6225
  - carbohydrates 2197, 5194, 6204, 7230, 8243
  - chlorophyll 10638, 10639, 10640
  - hemicellulose 8947
  - lignin 7229
  - magnesium 6225
  - nitrogen 7233
  - peroline 7234, 7235, 8243
  - phosphoglucose isomerase 427
  - phosphorus 6225
  - potassium 6225
  - protein 8241, 8243, 8934, 8947, 9735
- chemicals, general effects
  - aluminium 10642
  - lead 2184
  - nitrogen dioxide 5160

**Festuca contd.**

- chemicals, general effects contd.
  - ozone 5160
  - sulphur dioxide 5160, 7226, 8935
  - zinc 2184
- chilling requirement 6226
- chromosomes, accessory 7257, 7261
- chromosomes, morphology 4264
- chromosomes, number 3226, 5195, 9718
- clines 5191
- cold, effect of 7226
- cold resistance 1242, 10644
- combining ability 6225
  - digestibility 8947
  - hemicellulose 8947
  - protein 8947
- crossing over 7261
- cytology, review 7257
- desynapsis 9734
- development and growth 4240, 5194, 6202
  - digestibility 6202, 7228, 8947
  - digestibility, technique 7264
- Digitaria* (weed) 9737
- ecotypes 3206, 9736, 10624
- embryo culture 5155
- γ rays 7229
- genetic resources 2178
- genetic variance 6225
- genetics
  - phosphoglucose isomerase 427
  - phosphoglucose isomerase 427
- genotype × environmental interaction 6225, 7259, 8243
- genotype × environmental interaction, technique 3225
- geographical races 1242
- geography 3226
- germination 6226
- growth period 9736
- habit 5191, 5192
- hairs 6227
- haploidy 426, 5193
- heat and drought resistance 4263, 5189
- heat, effect of 10639, 10640
- height 7226, 9736
- Helminthosporium* 2185
- heritability 1242, 6225, 7229, 7233, 7234, 7259
  - chlorophyll 10640
  - digestibility 8947
  - hemicellulose 8947
  - protein 8947
- heterosis 4265, 10640
- heterozygosis 10638
- history and evolution 6227
  - review 7256
- hybridization, interspecific 415, 4264, 6227, 7256, 7257, 7258, 7260, 9384, 9734
  - inbreeding 10643
  - inflorescence 10641
  - inflorescence, number 5191
  - inflorescence, weight 5191
  - lawns and sports turf 2185, 7226, 8228
  - leaf 4240
    - leaf, anatomy 4242
    - leaf, size 8242
  - meiosis 4264, 6227, 7261
  - mixtures of crops or genotypes 8228
  - morphology 4242
  - mowing and cutting 8948
  - multiple alleles 427
  - multivariate analysis 9736
  - mutation, induced 7229
    - chlorophyll 10638
  - palatability 7228, 7230
  - palatability, technique 7264
  - persistence 1250, 5153
  - photosynthesis 2197, 5194, 7262, 8242
  - pollution, atmospheric 5160, 7226, 8935
  - polyembryony and twinning 7248
  - polyploidy 1242, 2790, 3226, 5192, 6226, 6227, 7248, 7257, 7262, 9384, 10644
  - protoplasts 5155
- Puccinia* 2185
  - physiological races 4266
- Puccinia*, technique 7265
- respiration 2197
- root 4240
- salinity 68
- salinity, technique 3211
- seasonal growth 5153

**Festuca contd.**

- seed production 7259, 10643
  - seed, size 9736
  - sexual reproduction 9735
  - shade 7263
  - size 8226
  - snow mould, unspecified 6204
  - soil pH 2184
  - soil stabilization 4263, 5189
  - stability 3225
  - stem 4242
  - sterility and fertility 6227, 7248
  - synthetic varieties 3225
  - taxonomy 3226, 5195, 5196, 6227
    - review 7256
  - temperature, effect of 8243
  - tillering 2197, 5191, 5192, 5194, 7248
  - tissue culture 5155
  - toxic soils 2184, 10642
  - Typhula* 10644
  - varieties
    - Czechoslovakia 3855
    - Poland 52
    - Switzerland 3207
    - USA 4263, 5189, 5190
  - varieties, classification 5191
  - variety trials
    - Czechoslovakia 4265
    - Norway 1250
    - Switzerland 1251, 5188
    - UK 7226
  - vegetative reproduction 9735
  - X rays 10638
  - yield components 2197, 9735
- Festuca × *Dactylis*, hybridization, intergeneric 8222**
- Festuca × *Lolium***
- aneuploidy 3223, 5182
  - back crossing 8238
  - cell division 1247
  - chemicals, as plant constituents, sugar 5180
  - chemicals, mutagenic effects, 3,5-diiodotyrosine 1247
  - chromosomes, number 1247
  - crossing over 1252
  - digestibility 4262
  - heritability 5180
  - heterosis 4262, 7260
  - hybrid varieties 1252
  - hybridization, intergeneric 415, 1247, 1252, 3222, 3223, 4262, 5180, 5182, 7227, 7256, 7257, 7258, 7260, 8222, 8238, 9388, 10635
  - meiosis 1252, 3223, 9388
  - mutation, induced 1247
  - polyploidy 3222, 5182, 7227, 8238
  - Puccinia* 3222
  - quality, for nutrition 3222, 5180, 8238
  - seed, number 4262
  - sterility and fertility 1252, 5182, 7227, 7260, 8222, 8238
  - sterility, male 3223
- Festuca × *Pennisetum***
- hybridization, intergeneric 8222
  - sterility and fertility 8222
- Festuca × *Poa***
- hybridization, intergeneric 8222
  - sterility and fertility 8222
- Fibre quality (see Quality, of fibre)**
- Ficus**
- apomixis 727, 7568
  - γ rays 2465, 2814
  - genetic resources 10849
  - germplasm banks, Azerbaijan SSR 10849
  - height 2465
  - mutation, induced 2465
    - review 2814
  - pollination 728
  - pruning 728
  - quality, for drying 729
  - seasonal growth 728
  - sterility and fertility 728
  - varieties, Azerbaijan SSR 2465
- Field bean (see Phaseolus; Vicia, broad bean)**
- Fig (see Ficus)**
- Filbert (see Corylus)**
- Fir (see Abies)**
- Fire effects, *Stylosanthes* 7308**
- Flax (see Linum)**
- Flooding**
- Glycine* 1645



**Flooding contd.**

- Ipomoea* 4363
- Lycopersicon* 1643
- Oryza* 1632, 2106, 2143, 2163, 3168, 5090, 5091, 5092, 5095, 5096, 5097, 5098, 5099, 5100, 5104, 5105, 5106, 5107, 5108, 5109, 5110, 6158, 6170, 7179, 8156, 8162, 10613
- symposium 5089, 5102
- Phalaris* 10645
- Vigna*, minor species 1644
- Zea*, maize 10489

**Flooding, technique, *Oryza*** 3165, 5103, 5111

**Flour quality** (see *Quality*, for milling and baking)

**Flower**

- Avena* 10403
- Beta*, sugar beet 6390
- Brassica* 865
- Cannabis* 1355
- Capsicum*, review 653
- Cuphea* 4490
- Fagus* 2570
- Gossypium* 8305, 9001
- grasses 10626
- Lespedeza* 469
- Momordica* 1551
- Nicotiana* 1380, 5340, 6411
- Oryza* 8905
- Prunus*, cherry 1428
- Prunus*, plum 5436
- Psophocarpus* 6797
- Punica* 2537
- Solanum*, egg plant 5635
- review 653
- Vigna*, cowpea 4698

**Flower, anatomy, *Prunus*, apricot** 9116

**Flower, colour**

- Arachis* 1414, 4483
- Brassica*, rape 1395
- Brassica* × *Raphanus* 1401, 3674, 5569
- Brassica*, turnip 871
- Carthamus* 4477
- Cicer* 3786, 4756
- Glycine* 7766
- Lablab* 8650
- Lens* 2755
- Lotus* 9762
- Medicago* 7283
- Nicotiana* 5343
- Oryza* 9664
- Phaseolus* 6714
- Rosa* 3483
- Vicia*, broad bean 941, 3728
- Vigna*, minor species 7757

**Flower, number**

- Cannabis* 2318
- Cicer* 2747
- Cocos* 9977
- Fagopyrum* 9716
- Lycopersicon* 913, 1517, 9266
- Morus* 7569
- Pseudotsuga* 7654
- Punica* 1485
- Triticum* 119

**Flower, size**

- Cajanus* 6817
- Glycine* 2720
- Luffa* 5615
- Medicago* 9749
- Trifolium*, red clover 1257

**Flowering**

- Aegilops* 7973
- Allium*, onion 4606
- Arachis* 3478, 7509
- Astragalus* 4317
- Avena* 3996
- Benincasa* 5616
- Brassica*, Brussels sprouts 5593
- Brassica*, swede 5568
- Bromus* 3220
- Cajanus* 4760
- Capsicum*, review 653
- Cocos* 738, 7572
- Coffea* 9875
- Coriandrum* 11199
- Cucumis*, cucumber 8532
- Cymbopogon* 6464
- Dactylis* 5169, 6211
- Eucalyptus* 7632
- Fagopyrum* 8928, 9716
- Glycine* 3756, 8605, 10144

**Flowering contd.**

- Gossypium* 5292
- grasses 10626
- review 62
- Helianthus*, sunflower 5381, 6453
- Hibiscus* 9020
- Ipomoea* 521
- Luffa* 5615
- Mangifera* 1466
- Manihot* 3406
- Momordica* 1551
- Nicotiana* 7451, 8335
- Oryza* 5093, 8156, 8167
- Panax* 5756
- Persea* 6527
- Phalaris* 4267, 6230
- Phaseolus*, review 62
- Phyllostachys* 2206
- Picea* 8489
- Pinus* 3638, 3639, 9193
- Pisum* 5701
- review 62
- Prunus*, apricot 3547
- Prunus*, cherry 3554
- Prunus*, peach 2498
- Psophocarpus* 6798, 6799, 6804, 6809
- Punica* 7601
- Pyrus* 3507
- Rubus*, raspberry 740
- Saccharum* 3385
- Secale* × *Triticum*, tritcale 7001
- Solanum*, egg plant, review 653
- Solanum*, potato 6298
- Sorghum* 2087, 8881
- review 62
- Trichosanthes* 5616
- Trifolium*, subterranean clover 4299
- Trifolium*, white clover 3286
- Triticum* 1793, 3920, 6943, 10267
- review 62
- Vaccinium* 4552
- Xanthosoma* 2359
- Zea*, maize 1964, 3056, 5982, 7054, 8794, 8801, 10478
- Zingiber* 2454

**Flowering, technique, *Hevea*** 2459

**Fluorescence**

- Avena* 8784
  - Triticum* 5911
  - Zea*, maize 9535
- Fodder beet** (see *Beta*, fodder beet)
- Foeniculum**
- breeding, Ukrainian SSR 9904
  - chemicals, as plant constituents, oil, essential 5717, 11201
  - germplasm banks, Ukrainian SSR 9903
  - growth period 10193
  - varieties, India 2768

**Foliage area**

- Allium*, onion 9234
- Eleusine* 3138, 9637
- Glycine* 2732
- Hordeum* 6102
- Lycopersicon* 7715, 8552
- Malus* 6485
- Manihot* 9848
- Medicago* 4277
- Nicotiana* 7450, 7461, 9859
- Oryza* 2132, 3182
- Phalaris* 10645
- Phaseolus* 6709, 8579
- Pisum* 7781, 8617, 10165, 10169
- Psophocarpus* 11190
- Solanum*, potato 8285
- Sorghum* 6123, 7136, 10575
- Trifolium*, red clover 4277
- Triticum* 1748, 2921, 2935, 6937
- Vicia*, broad bean 3727
- Vigna*, minor species 5672
- Zea*, maize 1952, 4041, 4059, 8038

**Foliage area, technique**

- Glycine* 6761
- Pennisetum* 2071
- Prunus*, cherry 6506
- Zea*, maize 6026

**Forage**

- Avena* 1902, 1903, 5965, 7984, 8782, 10406
- Cajanus* 6811
- Euchlaena* × *Zea*, maize 245
- Hordeum* 4101, 7984
- Leucaena* 7633
- Oryza* 342

**Forage contd.**

- Panicum* 9625
  - Pennisetum* 1181, 10559, 10560
  - Pisum* 6779, 7828
  - Secale* 7014, 7984
  - Secale* × *Triticum*, tritcale 7984
  - Sorghum* 332, 2078, 3140, 4124, 4131, 4132, 4134, 6121, 6127, 7125, 7126, 7135, 7143, 7144, 7145, 7146, 8136, 8140, 10577, 10579, 10581
  - Triticum* 7984
  - Vigna*, cowpea 3739
  - Vigna*, minor species 11115
  - Zea*, maize 3064, 6020, 6031, 6043
- Forest trees**
- book 10196
  - breeding
    - Italy 3623
    - Japan 6563
    - Pakistan 6565
  - chemicals, as plant constituents, carbon 5514
  - chromosomes, morphology 8458
  - chromosomes, number 8458
  - combining ability, technique 10946
  - computer simulation 6566
  - evolution, general theory 2561
  - experimental designs 1498
  - genetic resources 789, 2560, 7623, 8457, 10022
  - germplasm banks, German Federal Republic 1655
  - heritability 1497
  - history and evolution 8458
  - meiosis 8458
  - mutation 2561
  - mutation, induced 2561
  - pathology 7628
  - pollen 2562
  - pollution, atmospheric 5514
  - polyploidy 5513, 8458
  - polyploidy, technique 2562
  - population genetics, book 6567
  - provenance trials, USA 1496
  - provenance trials, technique 6566, 10948
  - selection, artificial 9173

**Fortunella**

- breeding, France 715
- plant introduction
  - from Georgian SSR 9954
  - to Azerbaijan SSR 9954
- Fortunella* × *Citrus*, lime, hybridization, intergeneric 9965
- Fortunella* × *Citrus*, orange × *Poncirus*, hybridization, intergeneric 9961
- Fortunella* × *Poncirus*
  - chemicals, as plant constituents, oil, essential 2504
  - cold resistance 726
  - fruit 726
  - hairs 726
  - hybridization, intergeneric 726, 2504
  - leaf, number of parts 726
  - nectar 726
  - polyembryony and twinning 726
  - quality, for fresh consumption 2504
  - seasonal growth 726
  - spines 726

**Foxglove** (see *Digitalis*)

**Fragaria**

- andrecium 757, 7593
- aneuploidy 676
- aphids 677
- apomixis 2466, 7592
- back crossing 756, 10923
- Botrytis* 5420
- breeding
  - Moldavian SSR 9986
  - Sweden 5414
  - USA 9994
  - USSR 754, 5476
- breeding, technique 10850
- calyx 760
- Capitophorus* 5481
- chemicals, as nutrients
  - boron 757
  - manganese 757
  - nitrogen 757
  - potassium 757
- chemicals, as plant constituents
  - leucine aminopeptidase 6537
  - peroxidase 6537
  - phosphoglucose isomerase 6537, 9146



**Fragaria** *contd.*

- chemicals, as plant constituents *contd.*
  - volatile compounds 6536
- chemicals, fertility and sex, effects
  - 1,4-bisdiazoacetylbutane 676
  - boron 757
  - colchicine 676
  - dimethyl sulphate 9144
  - manganese 757
  - nitrogen 757
  - N-nitroso-N-ethylurea 676
  - N-nitroso-N-methylurea 9144
  - potassium 757
- chemicals, general effects
  - diethyl sulphate 9144
  - dimethyl sulphate 9144
  - ethyleneimine 9144
  - GA 1478
  - herbicides 7596
- chemicals, mutagenic effects
  - colchicine 3601
  - ethyl methanesulphonate 3601
- chimeras 6534
- chromosomes, number 8431
- cold resistance 754, 5417
- Colletotrichum* 4554, 5477, 9145
- Colletotrichum*, technique 5479, 7595
- combining ability 1479
- Diplocarpon* 10925
- environment 6537
- experimental designs 1476
- fruit, size 756, 9991
- fruit, texture 5420
- Fusarium* 8432
- $\gamma$  rays 2814
- genetics
  - hairs 3602
  - phosphoglucosomerase 9146
  - phosphoglucose isomerase 9146
  - stem 1478
- germination 10924
- germplasm banks, USSR 6475
- glass and plastic, cultivation under 757
- growth period 7593
- gynecium 757
- hairs 3602
- harvesting 3603
- harvesting, mechanical 760, 3603, 5475, 5476, 9992, 9993
- heat and drought resistance 9147
- heritability 1477
- heterosis 10924
- history and evolution 6537
- hybridization, interspecific 676, 756, 10923
- inbreeding 1479, 9146, 10924
- inflorescence 7594
- light, effect of 7593, 10850
- magnetism, effect of 3600
- mechanical injury, technique 760
- multiple alleles, phosphoglucosomerase 9146
- mutation 1478, 6534
- mutation, induced 676, 3601
- review 2814
- Mycosphaerella* 9995
- outcrossing 10924
- photoperiodism 10850
- Phytophthora* 1479
- pollen 3600
- pollen, size 3601
- polyploidy 6537
- quality 9994
- quality, for conserving 6535
- quality, for food processing 10922
- quality, for freezing 759, 9994
- quality, for fresh consumption 5475
- recombination 676
- Rhizoctonia* 8432, 8433
- ripening 5475
- seasonal growth 10853
- Sphaerotheca* 761, 5414, 5417
- stem 1478
- sterility and fertility 676, 3600, 9146
- stomata 3600
- temperature, effect of 758
- Tetranychus* 9148
- tissue culture 4504, 8432
- variation 6537
- varieties
  - Azerbaijan SSR 8430
  - Canada 4555
  - India 3598

**Fragaria** *contd.*

- varieties *contd.*
  - Italy 6477, 8429
  - Sweden 5414, 5417
  - UK 672, 10922
  - USA 3599, 4553, 4554, 5477, 5478, 9145, 9990
- variety trials
  - Belorussian SSR 10920
  - Kazakh SSR 755, 10918
  - Moldavian SSR 7591, 9988
  - Netherlands 2528
  - Sweden 5418
  - UK 10922
  - USA 9987
  - USSR 2529, 7532, 10919, 10921
- vegetative reproduction 8432
- Verticillium* 2530, 5475, 5480, 8433
- Xanthomonas* 3604
- Xanthomonas*, technique 3604
- Frankliniella**
  - Gossypium* 1352
  - Musa* 7597
- Fraxinus**
  - chemicals, mutagenic effects,
    - miscellaneous 9174
  - genetic resources 789
  - geographical races 10031
  - mutation, induced, book 9174
  - polyploidy 10031
  - varieties, USA 4587
  - wind 4587
  - xylem 10031
- Freezing quality (see Quality, for freezing)
- French bean (see *Phaseolus*)
- Frost (see Cold resistance)
- Fruit**
  - Alylosia*  $\times$  *Cajanus* 2797
  - Carthamus* 4477
  - Citrus*, grapefruit  $\times$  *Poncirus* 726
  - Citrus*, lemon  $\times$  *Poncirus* 726
  - Citrus*, mandarin  $\times$  *Poncirus* 726
  - Citrus*, orange  $\times$  *Poncirus* 726
  - Citrus*, pomelo  $\times$  *Poncirus* 726
  - Crataegus* 10872
  - Fortunella*  $\times$  *Poncirus* 726
  - Gossypium* 3365
  - Lycopersicon* 11055
  - Malus* 3524
  - Olea* 4480
  - Phaseolus* 11095
  - Poncirus* 726
  - Prunus*, apricot 701
  - Prunus*, apricot  $\times$  *Prunus*, plum 10877
  - Prunus*, nectarine 9101
  - Prunus*, peach 9101
  - Prunus*, plum 5436
  - Psophocarpus* 6799, 6804
  - Pyrus* 4521
  - Quercus* 1500
  - Vigna*, cowpea 8592
  - Vigna*, minor species 7758
  - Vitis* 10935
- Fruit, anatomy**
  - Cucumis*, cucumber 11030
  - Lupinus* 7304
  - Malus*  $\times$  *Pyrus* 7546
  - Mangifera* 5461
  - Vaccinium* 3596
- Fruit, colour**
  - Achras* 4562
  - Capsicum* 654, 655, 1521, 2453
  - Cicer* 2747
  - Citrullus* 9250
  - Citrus* 5455, 6517
  - Citrus*, grapefruit 9963
  - Citrus*, grapefruit  $\times$  *Citrus*, mandarin 5455
  - Citrus*, lemon 9963
  - Citrus*, orange 5455
  - Citrus*, pomelo 5455, 9963
  - Coffea* 10801
  - Cucumis*, melon 8525
  - Cucurbita* 873
  - Hibiscus* 9019
  - Lablab* 8650
  - Lycopersicon* 2642, 6658, 9269
  - Malus* 682, 2474, 2478, 3506, 8387, 10863
  - Pisum* 10171
  - Prunus*, cherry 5441, 8405
  - Prunus*, peach 6515, 7565
  - Prunus*, plum 8398

**Fruit, colour** *contd.*

- Psophocarpus* 8644
- Pyrus* 695
- Rubus*, blackberry 742
- Syzygium* 1484
- Vigna*, minor species 7757
- Vitis* 6551, 6553
- Fruit cracking**
  - Lycopersicon* 11057
  - Prunus*, cherry 1452, 8405
  - Prunus*, plum 9939
- Fruit crops**
  - breeding
    - France 3503
    - Georgian SSR 9921
    - Kazakh SSR 8384
    - symposium 1423, 3502
    - USSR 6473, 6475, 7531, 9100
  - cold, effect of 61
  - combining ability, technique 2463, 10851
  - genetic resources 4501, 4503
  - germplasm banks
    - Sweden 4502
    - USSR 6472, 6475
  - heritability, technique 2463
  - hybridization, intergeneric 6472
  - hybridization, interspecific 6472
  - hybridization, wide 6865, 10852
  - mathematics, book 2463
  - mutation 6865
  - pathology 3869
  - plant introduction, to Japan 9373
  - pollen 61
  - polyembryony and twinning 5782
  - polyploidy 7533, 10852
  - reproduction 4501
  - sterility and fertility 10852
- Fruit, length, Lablab** 10185
- Fruit, number**
  - Arachis* 9899
  - Brassica*, rape 3461, 3664
  - Cajanus* 1608, 3797
  - Citrullus* 6637
  - Citrus*, lemon 725
  - Glycine* 971, 5683
  - Gossypium* 548, 7376, 7387, 9816, 10713
  - Hibiscus* 2324, 5316
  - Lablab* 10185
  - Lathyrus* 9764
  - Lupinus* 4306
  - Lycopersicon* 894, 2648, 5623
  - Phaseolus* 5659
  - Psophocarpus* 8644
  - Punica* 1485
  - Solanum* 662
  - Solanum*, egg plant 11069
  - Vicia*, broad bean 7734, 7736
  - Vigna*, cowpea 5666
  - Vigna*, minor species 7756, 8593, 10123
  - Zizyphus* 10002
- Fruit, shape**
  - Achras* 7604
  - Ananas* 2533
  - Cajanus* 11191
  - Capsicum* 1521
  - Citrus*, lemon 2503
  - Citrus*, mandarin 2503
  - Citrus*, orange 2503
  - Corylus* 10021
  - Cucumis*, cucumber 11023
  - Cucumis*, melon 11008
  - Lablab* 8650
  - Malus* 2474
  - Pyrus* 694, 3511
  - Quercus* 10023
  - Rosa* 9917
  - Syzygium* 1484
  - Vaccinium* 3594
- Fruit, size**
  - Brassica*, oil crops 632
  - Brassica*, rape 3664
  - Carica* 9143
  - Citrus* 6517, 8414
  - Citrus*, lemon 2503
  - Citrus*, lime 9135
  - Citrus*, mandarin 2503
  - Citrus*, orange 2503, 8416
  - Corylus* 10021
  - Cucumis*, cucumber 10977
  - Cydonia* 9113
  - Fragaria* 756, 9991
  - Glycine* 3752, 5682



**Fruit, size contd.**

- Gossypium* 530, 531, 533, 543, 544, 545, 3340, 3343, 3352, 4372, 4378, 5284, 5295  
*Helianthus*, sunflower 1410  
*Juglans* 3618, 5505  
*Lablab* 2759  
*Lotus* 473  
*Lycopersicon* 923, 2642, 5617, 11048  
*Lycopersicon* × *Solanum* 8545  
*Malus* 2477, 3505, 10861, 10863  
*Medicago* 9749  
*Morus* 3580  
*Musa* 2532  
*Papaver* 1389  
*Passiflora* 5486  
*Phaseolus* 8578  
*Phoenix* 7576  
*Pistacia* 5511  
*Prunus*, cherry 2496, 8405, 8407  
*Prunus*, peach 3508, 3560, 4531  
*Prunus*, plum 9922  
*Psidium* 5458  
*Psophocarpus* 5714, 6808, 8632, 8633, 8643, 8644  
*Punica* 2537  
*Pyrus* 693, 3511, 6491, 9922, 9935  
*Quercus* 10023, 10024  
*Ribes*, black currant 7586  
*Rubus*, raspberry 2521, 5468  
*Sesamum* 10816  
*Solanum* 662, 2456  
*Solanum*, egg plant 11069  
*Syzygium* 1484  
*Trichosanthes* 2633  
*Vaccinium* 2527, 3595  
*Vicia*, broad bean 7737  
*Vigna*, cowpea 11109  
*Vigna*, minor species 10123  
*Vitis* 773, 1492, 6551, 7614, 8440, 8445

**Fruit, texture**

- Arachis* 4483  
*Cucumis*, cucumber 7692, 10072  
*Fragaria* 5420  
*Lycopersicon* 8542  
*Prunus*, cherry 5441, 8405  
*Prunus*, peach 2499, 7565  
*Pyrus* 8395  
*Rubus*, raspberry 3499, 4543, 4547, 10900

**Fruit, texture, technique, *Rubus*, raspberry 4543****Fruit, weight**

- Ananas* 2533  
*Capsicum* 10840  
*Citrullus* 6637  
*Citrus*, grapefruit 9963  
*Citrus*, lemon 725, 9963  
*Citrus*, lime 9135  
*Citrus*, pomelo 9963  
*Cucumis*, melon 875  
*Gossypium* 542, 548, 3357, 3359, 7376, 9004, 9803, 9811, 9812, 9816  
*Hippophae* 6539  
*Juglans* 3618, 5505  
*Lycopersicon* 894, 905, 5623, 6657, 11048  
*Lycopersicon* × *Solanum* 8545  
*Malus* 2477  
*Musa* 2532  
*Prunus*, peach 4531  
*Prunus*, plum 707  
*Psophocarpus* 8632  
*Pyrus* 694, 9935  
*Quercus* 10023  
*Ribes*, gooseberry 671  
*Rubus*, blackberry 5471  
*Solanum* 662  
*Vaccinium* 3594  
*Vitis* 773, 8443, 8445

**Fruiting, biennial or irregular**

- Citrus*, orange 8416  
*Juglans* 10018  
*Mangifera* 736  
*Prunus*, plum 9939  
*Punica* 7601

**Fulvia**

- chemicals, as plant constituents, glycoprotein 9281  
*Lycopersicon* 4656, 7700, 8500, 8540, 8558, 10980  
 physiological races 2651, 9281, 10978  
 USSR 10081

**Fungi**

- Avena* 10253  
*Brassica*, review 5575  
 cereals 9417  
 physiological races 9415  
 USSR 9427  
 crop plants 1693, 1694, 1695, 2820, 3871, 9403, 9417, 10238  
 physiological races 1697, 1698, 9416  
 USSR 9427  
 review 1687, 1691  
*Eleusine* 330  
 genetics, crop plants, review 2820  
*Glycine* 957  
*Hevea*, review 4500  
*Hordeum* 1724, 8706, 10253  
*Lycopersicon* 4598, 6652  
*Medicago* 2222, 8251  
*Oryza* 9700  
*Panicum* 1173, 1174, 1175, 7120  
*Pisum* 4598  
*Rubus*, raspberry 4545, 10906  
*Secale* × *Triticum*, triticales 1877, 2991  
*Sorghum* 4165, 5086, 7158, 7159, 7160  
*Triticum* 197, 1724, 3962, 8706, 10253  
 review 196  
 vegetable crops 4598  
*Vitis* 6557  
*Zea*, maize 270, 1920, 5009  
 review 6059

**Fungi, technique**

- Hordeum* 6883, 8867, 10548  
*Panicum* 8127  
*Pisum*, review 11078  
*Triticum* 6883

**Furcraea**

- chromosomes, morphology 3382  
 chromosomes, number 3382

**Fusarium (see also *Gibberella*; *Nectria*)**

- Arctagrostis* 5201  
*Brassica* 5575  
*Brassica*, cabbage 1539, 6618, 10998  
*Brassica*, Chinese cabbage 6618  
*Brassica*, turnip 6618  
*Cajanus* 2797  
*Calamagrostis* 5202  
*Capsicum* 8380  
*Carthamus* 5387  
 physiological races 4479  
*Cicer* 986, 2753, 3793, 4667  
 physiological races 2796  
 India 2752, 3792  
*Citrullus* 873, 4628  
 physiological races 4629  
*Cucumis*, cucumber 9255  
*Cucumis*, melon 8500, 8528  
 physiological races, France 2589  
*Elaeis* 2432, 8371  
*Fragaria* 8432  
*Glycine* 4740  
*Gossypium* 552, 1331, 1687, 3368, 4389, 4391, 5277, 5280, 6263, 9820, 10723  
 physiological races  
 Paraguay 4388  
 Turkmen SSR 7393  
*Hordeum* 8124  
*Ipomoea* 8299  
*Linum* 1027, 5314, 8313, 8314, 9828  
*Lolium* 7245  
*Lupinus* 3293, 3297, 4306, 7306, 9760  
*Lycopersicon* 827, 890, 915, 917, 2638, 4599, 4637, 5632, 7714, 8540, 10980, 11056, 11058, 11062  
 physiological races 3719, 5632, 11060  
*Mangifera* 6522  
*Medicago* 5210, 6253  
*Morus* 4540  
*Musa* 5482, 5483  
*Nicotiana* 7433  
*Ocimum* 11202  
*Oryza* 2162, 8202  
*Phaseolus* 1027, 6728, 6730, 8586  
 physiological races 3866  
*Pinus* 4590  
*Pisum* 5707  
 physiological races 8614, 8615, 8616, 9322, 9323, 10160, 10161, 10162, 10163  
 UK 10159  
*Poa* 5163  
*Raphanus* 5553, 6605, 6618  
*Ricinus* 3467  
*Sesamum* 7487

**Fusarium contd.**

- Solanum*, egg plant 2657, 4599, 6673  
*Solanum*, potato 511, 3323, 4354, 8295  
*Sorghum* 1193, 2794  
*Spinacia* 7675  
*Trifolium*, red clover 7296  
*Tripsacum* × *Zea*, maize 4019  
*Triticum* 1103, 1848, 4890, 4897, 5924, 6978  
*Vicia*, broad bean 4668  
*Vigna*, cowpea, physiological races, Nigeria 4701  
*Zea*, maize 3029, 4819, 5992, 6056, 9589, 9590, 10498

**Fusarium, technique**

- Cajanus* 11075  
*Cicer* 11075  
*Cucumis*, cucumber 11032  
*Gossypium* 2312  
*Ipomoea* 1326  
*Nicotiana* 2378  
*Phaseolus* 11076, 11079  
*Pisum* 11077, 11078  
*Solanum*, potato 3325

**Fusicoccum, *Prunus*, peach 3508**

- Fuzz, *Gossypium* 526, 2295, 9814, 10717**

**γ rays**

- Acca* 2465, 2814  
*Allium*, garlic 6612  
*Allium*, minor species 10992  
*Amaranthus* 1564  
*Arachis* 1414, 5392  
*Avena* 10404  
*Beta*, sugar beet 2348, 6390, 6391, 7419  
*Betula* 4584, 9185  
*Brassica* 7673  
*Brassica*, oil crops 1397, 1398, 9059, 10811  
*Cajanus* 1608  
*Camellia* 2387, 2388, 2389, 2391, 10216  
*Capsicum* 1417, 5402, 8377, 9090, 10841, 10842  
*Carica* 1469  
*Chaenomeles* 2485  
*Cicer* 2748, 2749, 7792, 8622  
*Citrus* 2504, 2814  
*Citrus*, lemon 2502, 2503, 2510  
*Citrus*, mandarin 2502, 2503, 3573  
*Citrus*, orange 2502, 2503  
*Citrus*, orange × *Poncirus* 2504, 2506  
*Corchorus* 7399  
*Coriandrum* 11200  
 crop plants 64, 2814  
*Crotalaria* 10745  
*Cucumis*, cucumber 882, 2628  
*Cymbopogon* 2445, 4493  
*Eleusine* 329, 2074  
*Elymus* 10647  
*Fagopyrum* 408  
*Festuca* 7229  
*Ficus* 2465, 2814  
*Fragaria* 2814  
*Glycine* 965, 966, 969, 1584, 4718, 4722, 4726, 5689, 6759, 8599, 9313  
*Gossypium* 544, 545, 550, 1342, 1348, 2300, 2743, 3341, 3350, 3354, 3356, 3360, 4375, 6351, 7368, 7374, 8304, 8990, 9004  
*Helianthus*, sunflower 2418, 6445  
*Hippophae* 2535  
*Hordeum* 294, 300, 1007, 1626, 1676, 1718, 2032, 2035, 2036, 2046, 3112, 4105, 5031, 6864, 7093, 8096, 8113, 8117, 8839, 8845, 8846, 10535  
*Kochia* 478  
*Lablab* 989  
*Lathyrus* 1295, 8961, 8962  
*Lens* 4759, 9333  
*Lycopersicon* 893, 894, 899, 903, 904, 4639, 6657, 9267, 10077, 10078  
*Macroptilium* 3724  
*Malus* 1437, 2471, 2472, 2473, 2474, 4510, 7547  
*Mentha* 2766  
*Morus* 2511  
*Nicotiana* 1375, 8336, 8337, 10777, 10783  
*Oryza* 358, 1197, 1211, 1214, 1225, 1230, 2123, 2142, 4199, 4227, 5131, 7185, 7186, 8162, 9667, 10592, 10598  
*Pennisetum* 2066, 2067  
*Phaseolus* 1571, 2691, 9293, 9294  
*Pinus* 4589



***γ* rays contd.**

- Pistacia* 2465  
*Pisum* 1676, 6864, 9324, 10174, 10777, 11178, 11180  
*Poa* 2186  
*Poncirus* 2504  
*Prunus*, almond 2465, 2559, 2814  
*Prunus*, cherry 2493, 2494, 2495, 4528, 9120  
*Psophocarpus* 6796  
*Punica* 2465, 2814  
*Raphanus* 9228  
*Saccharum* 3385, 6374  
*Secale* 4003, 8789  
*Secale* × *Triticum*, tritcale 222  
*Sesamum* 4469, 6441, 8366, 10816  
*Solanum* 1422  
*Solanum*, potato 495, 498, 5252, 8975  
*Sorghum* 2089, 3144, 4138, 4142  
*Stenotaphrum* 1254, 5206  
*Trigonella* 6276  
*Triticum* 145, 149, 169, 177, 178, 1718, 1812, 2917, 4840, 4872, 5858, 5859, 5863, 6890, 7879, 7910, 7921, 8736  
*Vicia*, broad bean 935, 938, 2681, 3732  
*Vicia*, vetch 466, 6270  
*Vigna*, cowpea 3724, 4696  
*Vigna*, minor species 4706, 5671, 6742, 8593, 10120, 10121, 10122  
*Vitis* 2544, 2545, 2546, 2554, 3615, 4565, 10009  
*Zea*, maize 264, 2834, 6063, 8792, 10451  
*Zizyphus* 6540  
***Gaeumannomyces***  
heterocaryosis 3961  
*Lolium* 8946  
*Triticum* 2965, 3961, 4896  
**Garlic (see *Allium*, garlic)**  
**Gene dosage**  
*Dactylis*  
chlorophyll 8939  
leaf, colour 8939  
*Lycopersicon* 6667  
*Medicago* 4289  
*Oryza* 2150  
sterility, male, cytoplasmic 8906  
*Secale* × *Triticum* 8778  
*Secale* × *Triticum*, tritcale 5940  
*Triticum* 7926, 9446  
phosphoglucose isomerase 10290  
*Zea*, maize 4983, 5990, 6013, 6048, 7038, 10428, 10449  
**Gene interaction 9377**  
*Brassica* 1533  
*Citrullus* 9250  
*Daucus* 836  
*Gossypium* 549, 2288  
*Helianthus*, sunflower 643  
*Hibiscus* 2326  
*Lespedeza* 469  
*Nicotiana* 582  
*Oryza* 2134  
*Phaseolus* 2687  
*Pisum* 6785  
*Secale* × *Triticum*, tritcale 2992  
*Solanum*, potato 1640  
*Sorghum* 2090, 4146  
*Triticum* 152, 1809, 3939  
*Vigna*, minor species 3742  
*Zea*, maize 255, 1949, 3034  
**Gene interaction, technique, *Nicotiana* 1372**  
**Gene location 9387 (see also Linkage)**  
*Aegilops* 4844, 6923  
*Agropyron* 6923  
alcohol dehydrogenase 8950  
β-amylase 8950  
protein 7911  
*Agropyron* × *Triticum*  
alcohol dehydrogenase 8950  
β-amylase 8950  
*Avena* 5958, 5959  
*Beta*, sugar beet, *Heterodera* 9028  
*Brassica* 3672  
*Capsicum* 1417  
cereals 1033  
*Gossypium* 4371, 6344  
*Hordeum* 94, 316, 1031, 2022, 2023, 2049, 5032, 5851, 6923, 7088, 8085  
acid phosphatase 10531  
β-amylase 10531  
awns, size 8092  
chlorophyll 9601

**Gene location contd.**

- Hordeum* contd.**  
*Erysiphe* 8078  
glucose-6-phosphate dehydrogenase 10531  
malate dehydrogenase 10531  
nucleic acids 10243  
phosphoglucose isomerase 10531  
seed, shape 8080, 8088  
seed, size 9601  
sterility, female 8078  
*Hordeum* × *Triticum* 5851  
*Lolium*  
glutamate oxaloacetate transaminase 9731  
phosphoglucose isomerase 9731  
*Lycopersicon* 898, 3713  
alcohol dehydrogenase 11041, 11043  
phosphoglucose mutase 11041  
*Pennisetum* 2068, 2069  
*Secale* 3001, 6923, 7015, 7016  
nucleic acids 10243  
*Secale* × *Triticum* 199, 3001  
*Triticum* 133, 199, 201, 1080, 1792, 1795, 1796, 1852, 2804, 2883, 2884, 2888, 2916, 2922, 4844, 4845, 4875, 4876, 5845, 5847, 5865, 5869, 5871, 5879, 5901, 7936, 7963, 9387, 9471  
alcohol dehydrogenase 8950  
β-amylase 8950  
awns 7917, 8748  
chlorophyll 7895, 7896  
cold resistance 7892  
gliadin 9446  
growth period 8727  
height 8727  
inflorescence, length 8727  
meiosis 8725  
nucleic acids 10243  
phosphoglucose isomerase 10290  
protein 7911, 7942  
*Puccinia* 10381  
stem 7893  
sterility, male 7886, 7901  
sterility, male, cytoplasmic 10336  
tillering 8727  
yield components 7917  
*Zea*, maize 1034, 1945, 1946, 1947, 1948, 1974, 1985, 1989, 2825, 3032, 3035, 3038, 3043, 4013, 4032, 4980, 5990, 6007, 6010, 6027, 7067, 8035, 9539  
chlorophyll 9535  
nucleic acids 8020  
seed 10450  
sterility, male 9534  
**Gene mapping (see Linkage)**  
**Genes (see Genetics)**  
**Genes, multiple (see Multiple genes)**  
**Genetic code (see Molecular genetics)**  
**Genetic drift 9, 3810, 5726, 6829**  
crop plants 10230  
*Nicotiana* 10778  
**Genetic engineering, crop plants, symposium 5787**  
**Genetic resources (see also Germplasm banks)**  
*Acacia* 2182  
*Acacia* 10849  
*Aegilops* 1733  
*Allium*, onion 2594  
*Amaranthus* 2594, 4662, 6855  
*Astragalus* 10223  
*Brassica* 850, 1529, 1649  
*Brassica*, oil crops 3663  
*Brassica*, turnip 1649  
*Carya* 10849  
*Castanea* 10849  
cereals 6856  
*Chenopodium* 6855  
*Chrysanthemum* 2461  
*Cicer* 4670  
*Citrullus* 873  
*Citrus* 8414, 10849  
*Coffea* 9047  
crop plants 41, 1650, 1653, 1671, 1682, 3844, 3845, 5735, 5770, 6854, 6856, 7842, 8677, 8684, 9399, 9404, 9412, 10223  
book 8680  
symposium 1660  
*Cucumis* 873  
*Cucumis*, cucumber 9412  
*Cucurbita* 873

**Genetic resources contd.**

- Dactylis* 2178  
*Desmodium* 2247  
*Dioscorea* 6853  
*Diospyros* 10849  
*Elaeis* 2430  
*Erianthus* 7408  
essential oil plants 2443  
*Festuca* 2178  
*Ficus* 10849  
forest trees 789, 2560, 7623, 8457, 10022  
*Fraxinus* 789  
fruit crops 4501, 4503  
grasses 2180, 2182, 4234  
*Hevea* 2458  
*Hibiscus* 2594  
*Hippophae* 9997  
*Hordeum* 1699, 2054, 3875, 8070, 8071  
*Juglans* 10849  
leguminous forage crops 2182  
*Lens* 4670  
*Lolium* 2178, 2179, 8235  
*Lupinus* 4810, 6855  
*Lycopersicon* 2594, 9412  
*Malus* 7536, 7537, 9412  
*Manihot* 4421, 6853  
*Medicago* 3256, 3257  
*Miscanthus* 7408  
*Musa* 9404  
nonleguminous forage crops 5243  
*Olea* 10849  
*Ollucus* 6855  
*Oryza* 346, 2105, 2109, 5115, 6853, 9404, 9652  
*Oxalis* 6855  
palms 4810  
*Phaseolus* 1649, 4810, 5651, 6702  
*Pinus* 789, 2576  
*Piper* 9086  
*Pistacia* 10849  
*Pisum* 4666  
*Plantago* 10223  
*Prunus*, almond 10849, 10943  
*Prunus*, cherry 9412  
*Psophocarpus* 8627, 8629, 8630, 8637  
pulses 4669, 4676, 6853, 6856  
*Punica* 10849  
*Pyrus* 7536, 7537  
*Quercus* 789  
*Rauwolfia* 7525  
root crops 9404  
*Saccharum* 7408  
*Salvia* 10223  
*Secale* 1649  
*Solanum*, potato 1649, 2252, 8274  
*Sorghum* 7129, 7130  
*Taxus* 789  
*Trifolium*, minor species 2241  
*Trifolium*, red clover 2179  
*Triticum* 1699, 1728, 1733, 3875, 4836, 6898, 10260  
*Tropaeolum* 6855  
vegetable crops 2594  
*Vicia*, broad bean 4666, 4670  
*Vicia*, vetch 2179  
*Zea*, maize 6853, 10431  
**Genetic resources, technique**  
crop plants 10279  
*Triticum* 10279  
**Genetic stocks (see Germplasm banks)**  
**Genetic variance 4773, 5728, 5768, 7807, 7809, 9353, 9377**  
*Arachis* 6456  
habit 9899  
yield components 10829  
*Avena*  
development and growth 10402  
forage 10406  
protein 8782  
*Puccinia* 10384  
seed, weight 10384  
yield components 10406  
*Beta*, sugar beet 7422  
*Brassica*, Brussels sprouts 6624  
*Brassica*, cauliflower 5592  
*Brassica*, oil crops 9053  
*Cajanus*, yield components 10187  
*Capsicum* 6467  
*Cucumis*, cucumber  
fruit, size 7686  
fruit, weight 7686  
growth period 7687  
internode, length 8531



## Genetic variance contd.

- Cucumis*, cucumber contd.  
internode, number 8531  
stem, number 7686  
yield components 7687
- Cyamopsis* 7309
- Daucus* 5548  
leaf, number 10985  
leaf, size 10985  
leaf, weight 10985  
root, size 10985  
root, weight 10985
- Elaeis*, yield components 7498
- Elymus* 6235
- Fagus*, quality, of timber 8465
- Festuca* 6225
- Glycine*  
growth period 10142  
height 10142  
lodging 10142  
yield components 9318
- Gossypium* 6345, 6353, 7375  
quality, of fibre 10718  
yield components 9815, 10712, 10716
- Helianthus*, sunflower 6444  
yield components 9068, 9887, 10821
- Hibiscus* 5316  
yield components 10741
- Hordeum*  
height 8856  
internode, length 8856  
photoperiodism 10530
- Lablab* 6812  
leaf, size 7797  
yield components 9336
- Lactuca* 6626
- Lens*  
height 11189  
yield components 11189
- Linum*, oil, fatty 7398
- Lycopersicon* 7706  
yield components 11046
- Medicago* 7285
- Momordica*  
ascorbic acid 10074  
iron 10074  
phosphorus 10074  
potassium 10074  
protein 10074  
yield components 11039
- Nicotiana* 7462  
growth period 10785  
height 10785  
yield components 10785
- Oryza* 6173  
growth period 9688  
leaf 9688  
protein 10610  
yield components 7184, 8175, 9688
- Papaver*  
leaf, number 10806  
leaf, size 10806
- Phaseolus* 8575  
*Xanthomonas* 11094
- Pinus* 5737, 7634, 9191  
quality, of timber 8477
- Pisum*  
protein 11181  
yield components 10164
- Pseudotsuga* 7634, 7654
- Psophocarpus* 6808, 8626, 8631, 8640
- Secale* × *Triticum*, triticale, trypsin inhibitor 10397
- Solanum*, egg plant, fruit, length 11071
- Solanum*, potato 6331, 7319, 7361, 8283  
development and growth 8279  
growth period 8279  
height 8279  
specific gravity 8279  
tuber 8279  
yield components 10685
- Sorghum* 8137  
forage 10577, 10579  
growth period 10571  
lodging 10571  
nitrate reductase 7133  
protein 10570  
yield components 9646, 10571, 10577, 10579
- Trifolium*, red clover 6262
- Triticum* 4868, 5846, 5873, 5883, 5895, 5896, 5897, 5906, 6932, 6963, 8730  
alanine 6955

## Genetic variance contd.

- Triticum* contd.  
aminoacids 6955  
arginine 6955  
asparagine 6955  
cold resistance 7892  
development and growth 9458, 10320  
germination 8726  
growth period 9461, 10320  
height 8712, 8726, 9469, 10317, 10320  
inflorescence, number 10316  
isoleucine 6955  
lysine 6955  
proline 6955  
protein 8754  
quality, for milling and baking 6955, 8754  
seed, number 10316, 10320  
seed, weight 8754, 10316  
spikelets, number 10320  
tillering 10320  
tyrosine 6955  
yield components 7898, 8712, 8732, 9460, 9469, 10291, 10317, 10354
- Vicia*, broad bean 6690, 6695
- Vigna*, cowpea  
growth period 10116  
yield components 10116
- Vigna*, minor species 7756  
yield components 10124, 11118
- Zea*, maize 4991, 5995, 6002, 6003, 6004, 6030, 6046, 7036, 7037, 8803
- Acremonium* 9588  
ammonium sulphate 10490  
carotenoids 7046  
chlorophyll 7046  
flowering 8801  
growth period 8024, 10506  
height 8802  
nitrogen 9556  
*Ostrinia* 10506  
phosphoenolpyruvate carboxylase 7046  
photosynthesis 7046  
protein 8050  
ribulose 1,5-diphosphate carboxylase 7046  
yield components 9582
- Zea*, popcorn 5021
- Genetic variance, technique** 5725
- Genetics** 5, 1002, 1623, 2780, 3818, 4779, 4781, 9376, 10202, 10203
- Aegilops*  
enzymes 3955  
esterase 6964  
peroxidase 1791  
*Puccinia* 3877  
*Schizaphis* 9492
- Aegilops* × *Triticum*  
asynapsis 7919  
meiosis 7919
- Agaricus*, sterility and fertility 1518
- Agropyron*, *Puccinia* 3877
- Amaranthus*  
inflorescence, colour 6199  
seed 6199
- Apium* × *Petroselinum*, leaf, colour 11002
- Arachis*  
anthocyanins 2440  
flower, colour 4483  
fruit, texture 4483  
habit 4483, 5392  
hairs 4483  
peroxidase 7513  
*Rhizobium* 8375  
seed, colour 5391, 5394  
seed, variegation 5394  
stem, colour 2440, 4483
- Asparagus*, sex 3838
- Atylosia* × *Cajanus*  
fruit 2797  
hairs 2797  
seed 2797  
seed, colour 2797
- Avena*  
*Erysiphe* 5963, 5969  
esterase 2856  
hairs 1899  
height 227, 3002, 3879, 4927, 10405  
inflorescence 227  
*Puccinia* 3998, 3999, 4925, 4926, 5971, 5972, 5973, 7010, 7991, 10410  
transaminase 2856

## Genetics contd.

- Avena* (weed), dormancy 1900
- Beta*, sugar beet  
andrecium 6390  
flower 6390  
malate dehydrogenase 6384  
malic enzyme 6384  
sterility, male, cytoplasmic 2348
- Brassica**  
acid phosphatase 865, 3667  
anther, colour 1533  
anthocyanins 1533  
corolla 1533  
corolla, colour 1533  
enzymes 3672  
flower 865  
glutamate oxaloacetate transaminase 3672  
glycoprotein 2609  
gynecium, colour 1533  
habit 1535  
leaf 1533, 1535  
*Leptosphaeria* 3677, 5580  
phosphoglucomutase 3672  
*Plasmodiophora* 1535  
seedlings 865  
sterility and fertility 865, 6616  
sterility, self 2609  
superoxide dismutase 3672
- Brassica**, Brussels sprouts  
acid phosphatase 2608, 3675  
sterility and fertility 4613  
sterility, self 4613, 5570, 6624
- Brassica**, Brussels sprouts × **Brassica**, cabbage  
sterility and fertility 4613  
sterility, self 4613
- Brassica**, cabbage  
acid phosphatase 2608, 3675  
sterility and fertility 4613  
sterility, self 1537, 4613, 5570
- Brassica**, cauliflower  
habit 5592  
inflorescence, colour 1542  
size 3683  
sterility, self 1543, 3683
- Brassica**, Chinese cabbage  
*Plasmodiophora* 5584  
sterility, male 3680
- Brassica**, kale  
acid phosphatase 2608  
sterility, self 1537
- Brassica**, oil crops  
*Albugo* 633  
anthocyanins 633  
corolla 633  
hairs 633  
pollen, colour 633  
seed, colour 1399, 9881  
seedlings, colour 633  
sterility and fertility 8361  
sterility, self 8361
- Brassica**, rape  
embryo, colour 4456  
flower, colour 1395  
growth period 3457  
leaf 1395  
*Leptosphaeria* 3677, 5580  
seed, colour 4460  
sterility, male 1395  
sterility, male, cytoplasmic 1401, 1402, 4457, 5569, 5573
- Brassica** × **Raphanus**  
flower, colour 1401, 3674, 5569  
sterility, male, cytoplasmic 1401, 5569
- Brassica**, sprouting broccoli  
acid phosphatase 2608  
sterility, self 4622, 5570
- Brassica**, swede, sterility, self 7834
- Brassica**, turnip  
flower, colour 871  
*Plasmodiophora* 5584
- Bremia*, *Lactuca* 1546, 3689, 3691, 10063
- Cajanus**  
corolla, colour 4760  
flowering 4760  
fruit, shape 11191  
habit 4760  
height 4760  
leaf 11191  
leaf, shape 4760, 10186  
*Phytophthora* 2797



## Genetics contd.

- Cajanus* contd.  
 seed, colour 11191  
 seed, shape 11191
- Camellia*  
 chlorophyll 6421  
 leaf 6421  
 sterility and fertility 4448
- Canavalia*, leaf, number of parts 991
- Capsicum*  
 anthocyanins 8377  
*Phytophthora* 6468  
 sterility and fertility 1417  
 sterility, male 9092  
 viruses 7520, 10969
- Carthamus*  
 flower, colour 4477  
 habit 2425  
 seed 4477  
 sterility, male 4478
- Cenchrus*, apomixis 7271
- cereals, amylose 2155
- Cicer*  
 flower, colour 4756  
 flower, number 2747  
 fruit, colour 2747  
 leaf, colour 2747  
 seed 2747  
 seed, colour 2747, 4756  
 seed, texture 4756  
 seedlings, colour 2747  
 stem, colour 4756
- Citrullus* 2620  
*Colletotrichum* 5607  
 fruit, colour 9250  
*Fusarium* 4629  
 seedlings, colour 11014
- Citrus*, mandarin  
 phosphoglucumutase 10884  
 phosphoglucose isomerase 10884
- Clarkia*, phosphoglucose isomerase 5749
- Cochliobolus*  
 cereals 8705  
*Zea*, maize 6058, 10495
- Coffea*  
 acid phosphatase 8353  
 esterase 8353  
 fruit, colour 10801  
*Gibberella* 7481  
*Glomerella* 7480  
 height 10801  
*Hemileia* 10803, 10804  
 isocitrate dehydrogenase 8353  
 leucine aminopeptidase 8353  
 malate dehydrogenase 8353  
 phosphoglucumutase 8353  
 6-phosphogluconate dehydrogenase 8353  
 phosphoglucose isomerase 8353  
 sterility and fertility 8356, 10801
- Cola*, sterility and fertility 9051
- Corchorus*  
 desynapsis 7401  
 leaf, shape 9018
- Corylus*  
 fruit, shape 10021  
 fruit, size 10021  
 leaf, shape 10021
- crop plants 5735  
 bacterial toxins, review 1690  
 fungal toxins, review 1690  
 fungi 1697, 1698  
 review 2820  
 pathology 2819, 2826  
 review 1692  
 photosynthesis, review 63  
 sterility, self 2826
- Cucumis* 2620  
*Sphaerotheca* 8538
- Cucumis*, cucumber 2620  
 corolla 11023  
 corolla, shape 11028  
 determinate and indeterminate habit 8531  
*Erwinia* 5610  
 gynecium 7692  
 hairs 11026  
 leaf, shape 11028  
 leaf, size 11024  
 quality, for fresh consumption 7696, 10977  
 sex 4634, 5610, 7685, 8535, 11025  
 spines, colour 11030

## Genetics contd.

- Cucumis*, cucumber contd.  
*Tetranychus* 7696
- Cucumis*, melon 2620  
*Aphis* 5605, 11012  
 chlorophyll 11006  
*Fusarium* 2589, 8500, 8528  
 growth period 4627  
 hairs 11006  
 sterility, male 11007  
 viruses 5605
- Cucurbita* 2620  
 protein 4631  
 sex 1548  
 sterility, male 5608
- Cucurbitaceae*, sex 5600
- Dactylis*  
 acid phosphatase 418  
 chlorophyll 8939  
 glutamate oxaloacetate transaminase 418  
 leaf, colour 8939  
 malate dehydrogenase 418  
 peroxidase 418  
 sterility, male, cytoplasmic 4254
- Daucus*  
 anthocyanins 5546  
 $\alpha$ -carotene 6603  
 $\beta$ -carotene 6603  
 $\gamma$ -carotene 6603  
 $\zeta$ -carotene 6603  
*Erysiphe* 2587  
 hairs 5546  
 leaf, colour 5546  
 lycopene 6603  
 neurosporene 6603  
 phloem, colour 5546, 6602  
 phytofluene 6603  
 root, colour 836, 5546, 6602  
 xylem, colour 5546, 6602
- Drechslera*, cereals 8705
- Eleusine*  
 colour 9636  
 inflorescence, shape 9636
- Erysiphe*, *Triticum* 10376
- Fagopyrum*  
 andrecium, size 1241  
 gynecium, size 1241, 10621  
 heterostyly 1241, 5149, 8925, 10621  
 sterility, female 8929  
 sterility, male 8929  
 sterility, self 5149, 8925
- Fagus*  
 acid phosphatase 6579  
 leucine aminopeptidase 6579
- Festuca*, phosphoglucose isomerase 427
- Fragaria*  
 hairs 3602  
 phosphoglucose isomerase 9146  
 stem 1478
- fungi, crop plants, review 2820
- Globodera*, *Solanum*, potato 4359
- Glycine*  
 amylase 5681  
 $\beta$ -amylase 5690, 5691, 6769  
 chlorophyll 7769, 7847, 8600, 8602, 9314  
 chromosomes, aberrations 9313  
 determinate and indeterminate habit 4736, 10140, 11143  
 development and growth 9313  
 flower, colour 7766  
 flowering 8605  
 fungi 957  
 growth period 4736, 10140  
 hairs 4736  
 hairs, colour 3774, 7766  
 internode 4736  
 iron 4733, 4734  
 leaf, number of parts 4736  
 leaf, shape 4736  
 lectins 11136  
 leghemoglobin 7763  
 nitrogen fixation 5697, 11120  
*Phakopsora* 1595, 11170  
*Phytophthora* 5699, 7762  
 protease inhibitor 932  
*Rhizobium* 970, 3759, 5694, 6766, 11121, 11160  
*Rotylenchulus* 3772, 11174  
 seed, colour 1586  
 seedlings, colour 8600

## Genetics contd.

- Glycine* contd.  
 sterility, male 1591, 3754, 6757, 6758, 7766  
 trypsin inhibitor 6770, 11136  
 viruses 3774, 3775
- Gossypium* 3338, 7372  
 anthocyanins 7377, 10717  
 book 526  
 bracts 528, 9802  
 calyx 2294  
 cleistogamy 7378  
 colour 9802, 10717  
*Fusarium* 10723  
 fuzz 526, 2295  
 glands 528, 9802  
 growth period 8997  
 hairs 4394, 7378, 10726  
 leaf 9802, 10717  
 leaf, colour 7377  
 leaf, shape 3358, 6356  
 leaf, texture 5287  
 nectar 528, 6356, 8308, 9802  
 pollen, colour 555  
 stem, colour 7377  
 sterility, male, cytoplasmic 537, 1335, 3344  
*Verticillium* 5303  
*Xanthomonas* 2309, 8994
- grasses, flowering, review 62
- Helianthus*, sunflower  
 growth period 2411  
 habit 639  
*Homoeosoma* 643  
 inflorescence, shape 5377  
 leaf 639  
*Orobancha* 643  
*Plasmopara* 643, 4475, 6451  
*Plasmopara*, technique 7494  
*Puccinia* 643  
 sterility, male, cytoplasmic 5383  
*Verticillium* 643
- Helminthosporium*, cereals 8705
- Hemileia*, *Coffea* 10803
- heterostyly 10207
- Hibiscus*  
 • chlorophyll 7403, 8318  
 corolla, colour 9019  
 fruit, colour 9019  
 leaf, colour 9019  
 stem, colour 9019
- Hordeum* 8082, 8083  
 albumin 307  
 alcohol dehydrogenase 5036, 5851, 8858  
 apomixis 6850  
 awns 9601  
 awns, colour 10544  
 awns, length 9612  
 chlorophyll 2022, 2023, 3110, 7088, 8084, 9601  
 development and growth 8087  
 endopeptidase 5851  
 endosperm 2049, 8068  
 endosperm, texture 2031  
 enzymes 2805  
*Erysiphe* 1147, 2060, 4086, 5045, 6104, 7099, 7113, 7115, 8073, 8077, 8078, 8125, 8706, 8868, 8869, 8871, 9617  
 esterase 2856, 5851  
 GA 8850  
 globulin 307  
 glutamate oxaloacetate transaminase 5851  
 growth period 6083, 8075, 8115  
 gynecium 8074  
 height 1149, 2022, 2023, 3109, 6083, 6085, 8850  
*Heterodera* 94, 8073  
 hordein 309, 2805, 4086, 5045, 8077  
 inflorescence 1149, 8855, 10542  
 inflorescence, colour 10544  
 leaf, colour 10544  
 ligule 8089  
 lysine 307, 1031, 3121, 6095, 8079, 8859, 9611  
 meiosis 3102  
 naked grain 8074, 9612  
 necrotic leaf spotting 8088  
 nitrate reductase 2041, 10529, 10532  
 photosynthesis 7091  
 polyploidy 3102, 9383



## Genetics contd.

*Hordeum* contd.

- Puccinia* 5059, 5060, 6109, 7099, 8872  
review 1161  
seed, shape 8080, 8088  
seed, size 9601  
seedlings 6085  
spikelets 3112  
spikelets, number 316  
sterility, female 8078  
sterility, male 6086, 8068  
sterility, male, cytoplasmic 306  
transaminase 2856  
*Ustilago* 315, 316, 8126  
*Ustilago* seed, colour 8077  
viruses 3131, 4105, 9618  
xenia 2049  
yield components 6083

*Hordeum* × *Triticum*

- alcohol dehydrogenase 5851  
aminopeptidase 5851  
endopeptidase 5851  
glutamate oxaloacetate transaminase 5851  
sterility and fertility 9452

*Ipomoea*, sterility, self 5271*Klebsiella*, nitrogen fixation 9395*Lablab*

- flower, colour 8650  
fruit, colour 8650  
fruit shape 8650  
internode, colour 8650  
seed, colour 8650

*Lactuca*

- Bremia* 1546, 3690, 4625, 6627, 6628  
dormancy 7677  
nitrate 5597  
*Pemphigus* 6628

*Lagenaria* 2620*Lathyrus*, seed, colour 8961leguminous forage crops, *Rhizobium*,  
review 6241*Lens*

- flower, colour 2755  
habit 10184  
inflorescence 10184  
leaf, shape 4759  
seed, colour 5712  
seedlings, colour 2755  
sterility and fertility 10184

*Lespedeza*

- corolla 9758  
flower 469

*Linum*

- Fusarium* 9828  
*Melampsora* 1354, 3375, 3379, 4398,  
5313, 8315, 9828, 10733

*Lolium*

- anthocyanins 8237  
phosphoglucose isomerase 3221  
*Puccinia* 5187

*Lotus*, leaf, number of parts 472*Luffa* 2620*Lupinus*

- aspartate transaminase 5236  
development and growth 4306  
*Fusarium* 4306, 9760  
phosphoglucose isomerase 5236  
6-phosphogluconate dehydrogenase 5236

*Lycopersicon*

- acid phosphatase 898  
alcohol dehydrogenase 3713, 5621,  
11041, 11043  
*Alternaria* 4637  
anther, size 3709  
anthocyanins 11044  
bacteria 4598, 6652  
chlorophyll 3723, 8541  
*Cladosporium* 890, 1558  
determinate and indeterminate habit 2639  
epidermis, colour 2642  
esterase 898  
flower, number 9266  
fruit, colour 2642, 6658  
*Fulvia* 2651, 8558, 8559, 9281, 10081,  
10978  
fungi 4598, 6652  
*Fusarium* 890, 3719, 4637  
glutamate oxaloacetate transaminase 898  
growth period 1517

## Genetics contd.

*Lycopersicon* contd.

- habit 1517, 10978  
height 2639  
leaf, shape 8548  
*Meloidogyne* 2651, 3721, 4637, 11058,  
11063  
parthenocarpy 2591, 3709, 10978  
peroxidase 898  
phosphoglucose isomerase 3713, 11041  
phosphoglucose isomerase 898, 2643  
ripening 909, 2641  
seed, colour 1552  
shikimate dehydrogenase 898  
sterility and fertility 908, 2639, 2645,  
8548  
sterility, male 1552  
sterility, self 4649, 11052  
triose phosphate isomerase 898, 3713  
*Verticillium* 3719, 4637, 8560  
viruses 890, 1517, 3723, 4598, 4637,  
5634, 5795, 6652, 6667, 6668, 7726,  
8500, 8563, 10083, 10084, 10978,  
11065, 11066

*Lycopersicon* × *Solanum*

- acid phosphatase 898  
carotene 902  
β-carotene 8545  
determinate and indeterminate habit 8545  
glutamate oxaloacetate transaminase 898  
polypeptides 10076  
ribulose 1,5-diphosphate carboxylase 10076

*Malus*

- fruit, colour 682, 3506  
leaf, colour 682, 3506  
phloridzin 667  
*Podospaera* 3514, 10863  
sieboldin 667  
stem, colour 682, 3506  
trilobatin 667  
*Venturia* 3513, 6480

*Medicago*

- leucine aminopeptidase 2218, 2219  
*Meloidogyne* 4289  
peroxidase 2218, 2219  
*Phytophthora* 10667, 10668  
sterility, male 447  
sterility, male, cytoplasmic 447  
sterility, self 3263  
tissue culture 2214

*Melampsora*, *Linum* 4398, 8315*Melilotus*

- β-glucosidase 8267  
o-hydroxycinnamic acid 8267

*Melothria* 2620*Mentha*

- isomenthone 4768  
menthone 4768  
pulegone 4768

*Momordica* 2620*Morus*, peroxidase 8418*Nicotiana*

- chlorophyll 597, 3429, 3430, 5342,  
5344, 5345, 5346, 8334  
chloroplasts 5345  
cytochrome c reductase 10779  
*Erysiphe* 9034  
flower, colour 5343  
germination 601, 6408  
gynecium, colour 8333  
leaf 5341  
leaf, colour 5344  
leaf, number 604  
leaf, shape 604  
*Meloidogyne* 2365, 8349  
nicotine 4431, 7440, 7456  
nitrate reductase 10779  
photoperiodism 10787  
*Phytophthora* 6418  
picloram 4433  
protein 3432  
*Pseudomonas* 6416, 6417, 7458  
solaneseol 597  
sterility and fertility 600, 8341, 10777  
sterility, male, cytoplasmic 5348  
sterility, self 599, 3432, 6401, 9036  
*Thielaviopsis* 4444  
viruses 621, 2365, 4444, 7452, 7458,  
7473, 7475, 8350

*Nilaparvata*, *Oryza* 396

## Genetics contd.

*Ocimum*, *Fusarium* 11202*Origanum*

- sterility, male 6824, 9342  
sterility, male, cytoplasmic 6824, 9342

*Oryza* 1207

- acid phosphatase 7205  
amylose 1226, 2150, 2155, 6161  
anthocyanins 356, 2121, 3176, 9691  
*Cercospora* 9664  
chlorophyll 10607  
cold resistance 7210  
esterase 367  
fertilization, sexual 10597  
flower, colour 9664  
growth period 6153, 7190, 9664  
gynecium, colour 2121  
hairs 9664  
height 362, 1222, 2846, 3176, 5128,  
8163, 10602  
inflorescence, shape 1216  
internode, colour 9691  
*Laodelphax* 3199  
leaf 2124  
leaf, colour 356, 2121, 3176, 7210,  
9691  
leaf, size 2846  
ligule 10597  
*Nephotettix* 3199, 9712  
*Nilaparvata* 392, 395, 396, 398, 3199,  
8155, 9711, 10619  
peroxidase 7205  
photoperiodism 6153  
*Pyricularia* 387, 3196, 4225, 6153,  
6181, 6184, 6185, 6188, 7190, 8158,  
8210, 8921, 10618  
quality, for cooking 8191, 9694  
amylose 4192  
quality, for milling and baking 6161  
review 345  
*Scirpophaga* 8922  
seed, colour 3176, 4201, 6161  
seed, size 1216, 2846, 4211  
seed, texture 2835  
*Sogatella* 9706, 9709  
spikelets, size 4201  
stem 2124, 2846  
stem, colour 2121, 3176  
sterility and fertility 356, 9682  
sterility, male 4186, 8167, 10607  
sterility, male, cytoplasmic 8172, 8906  
*Thanatephorus* 5142  
viruses 2103  
*Xanthomonas* 2166, 8154  
review 1232  
*Panicum*, apomixis 10556  
*Papaver*, desynapsis 6429  
*Pennisetum* 2068, 2069  
alcohol dehydrogenase 8128, 10558  
brown mottle 9634  
growth period 10562  
height 1181, 6201, 9633, 10559

*Persea*

- glutamate oxaloacetate transaminase 1470  
leucine aminopeptidase 1470  
malate dehydrogenase 1470  
peroxidase 1470  
phosphoglucose isomerase 1470

*Phaseolus*

- chlorophyll 9292  
*Colletotrichum* 8588  
cytokinins 4684  
determinate and indeterminate habit 11096  
development, abnormal 6713  
flower, colour 6714  
flowering, review 62  
*Fusarium* 3866  
habit 6714, 10099  
height 9292  
leaf 6709  
leaf, shape 8575  
lectin 946  
*Meloidogyne* 2699  
ozone 3737  
*Phaeoisariopsis* 6726  
phaseolin 7742  
photoperiodism 2687, 2690  
protease inhibitor 932  
seed, colour 6714, 8575  
seed, shape 6714  
sterility, male 3734, 7743, 7744, 11100



## Genetics contd.

*Phaseolus* contd.

*Uromyces* 6727, 8587  
viruses 5662, 10098

*Phleum*, desynapsis 6215*Phoenix*

alcohol dehydrogenase 3584  
esterase 3584  
glutamate oxaloacetate transaminase 3584

phosphoglucumutase 3584

phosphoglucose isomerase 3584

*Phytophthora*, *Solanum*, potato 512*Picea*

esterase 9204  
glutamate oxalate transaminase 9204  
leucine aminopeptidase 9204

*Pinus*

acid phosphatase 6585, 7641  
aconitase 6585  
alcohol dehydrogenase 10954  
aspartate aminotransferase 10954  
*Cronartium* 6590  
enzymes 10036  
glutamate dehydrogenase 6585  
glutamate oxaloacetate transaminase 5532, 6585  
isocitrate dehydrogenase 6585  
leucine aminopeptidase 6585, 6587, 10954  
limonene 9194  
malate dehydrogenase 6585  
myrcene 9194  
peroxidase 6587, 10032  
 $\beta$ -phellandrene 9194  
phosphoglucumutase 6585, 10032  
6-phosphogluconate dehydrogenase 6585, 10954  
phosphoglucose isomerase 5532, 6585, 10954

$\beta$ -pinene 9194

*Pisum* 2739

albumin 8619  
amylose 10170  
aspartate aminotransferase 5749  
bacteria 4598  
chlorophyll 5704  
*Erysiphe* 9329  
fasciation 974  
flowering 5701  
review 62  
foliage area 7781, 8617  
fructose 1,6-diphosphate aldolase 5749  
fungi 4598  
growth period 6787, 7780  
habit 7780  
internode, size 974  
leaf 3839, 5704  
leaf, number 7783  
legumin 2802, 3839, 6781  
lysine 5704  
nitrate reductase 4749  
phosphoglucumutase 5749  
protein 5704  
seed 7788  
seed, number 7780  
shedding 7788  
shikimate dehydrogenase 5749  
starch 6781, 10170  
stem 5704  
sugar 6781  
trypsin inhibitor 4751, 5704  
tryptophan 5704  
*Uromyces* 7790  
vicilin 2802  
viruses 4598

protein 1614, 1615

*Prunus*, nectarine, fruit 9101

*Prunus*, peach

fruit 9101

malic acid 1434

*Prunus*, plum, dormancy 669

*Psophocarpus* 8626

*Puccinia*, *Triticum* 4904, 4910

pulses, *Rhizobium*, review 6241

*Pyrenophora*, cereals 8705

*Pyricularia*, *Oryza* 6183

*Pyrus*

fruit, colour 695  
leaf, shape 695  
quality, for fresh consumption 695

*Raphanus*

corolla, colour 1525

## Genetics contd.

*Raphanus* contd.

cyanidin 3654  
hairs 842, 3654  
leaf 3654  
pelargonidin 3654  
peroxidase 843  
root, colour 3654  
seed, colour 3654  
stem, colour 3654  
sterility and fertility 6616  
sterility, male 10971

recombination 2775

*Rhizobium*, nitrogen fixation 9395

*Ribes*, black currant, *Sphaerotheca* 9984

*Ricinus*

seed, colour 4468  
sex 1407  
spines 4468  
stem, colour 4468  
wax 4468

*Rubus*, raspberry

*Amphorophora* 10906  
anthocyanins 10900  
viruses 4549, 10905

*Secale* 4940

anther, colour 10419  
anther, size 10419  
anthocyanins 7016, 8002, 10419  
esterase 8001  
hairs 10419  
height 4936, 8005, 8008, 8786  
leaf, colour 8002  
leaf, shape 10419  
ligule, colour 10419  
ligule, shape 10419  
protein 8003  
sterility, male 8007  
sterility, male, cytoplasmic 8007, 9515  
sterility, self 8002, 10419  
wax 10419

*Secale*  $\times$  *Triticum*

asynapsis 7919  
*Erysiphe* 199  
meiosis 7919  
sterility and fertility 9452

*Secale*  $\times$  *Triticum*, tritcale, symposium 1876

*Sesamum*, fruit, size 10816

*Setosphaeria*, cereals 8705

sex 11025

*Solanum*, egg plant, *Fusarium* 6673

*Solanum*, potato

alkaline phosphatase 7316  
 $\alpha$ -chaconine 5255  
 $\beta$ -chaconine 5255  
commersonine 5255  
*Globodera* 4359, 6334, 7358, 9772  
habit 4337  
hairs 499  
meiosis 4339, 10688  
phosphoglucose isomerase 7316  
*Phytophthora* 1321, 1696, 3328, 6332, 7342

*Pseudomonas* 1640

solanine 5255

sterility and fertility 1308

sterility, male, cytoplasmic 6313

*Synchytrium* 9792

tuber, number 4337

tuber, shape 4337, 5254

viruses 3333, 4360

*Sorghum*

awns 5077, 8882  
*Cercospora* 10585  
colour 5077  
endosperm 3151  
endosperm, texture 1188  
flowering, review 62  
growth period 7136  
habit 2081  
hairs 9641  
height 6121, 10575  
inflorescence 2081, 9641  
leaf 2081, 5077  
leaf, colour 2081, 4150, 8880  
lignin 4150, 8880  
ligule 4130  
protein 4151  
ratooning 6124  
seed, anatomy 3141  
seed, colour 4130, 8882  
seed, number 3142

## Genetics contd.

*Sorghum* contd.

seed, shape 5077  
spikelets 4130, 5077, 8882, 9641  
spikelets, colour 5077, 9641  
starch 3141  
sterility, male 8131  
*Striga* 2794  
tannin 8133  
tillering 6124  
wax 1195, 4123, 4146, 6121

*Spinacia*, *Peronospora* 10974

sterility and fertility 3827, 10208

sterility, male 6846

sterility, male, cytoplasmic 6846

symposium 9375, 9386

*Thymus*, thymol 8653

*Trichometasphaeria*, *Zea*, maize 1922

*Trifolium*, red clover

leaf 5228

sterility, male 7294

*Trifolium*, white clover

cyanogenetic compounds 2239, 7297

gynecium, number 10673

linamarase 2239, 7297, 7298

linamarin 7298

lotaustralin 7298

*Triticum*

alcohol dehydrogenase 4845, 10303

aluminium 1755, 7887

asynapsis 7919

awns 6916, 8748

bracts, colour 201

chlorophyll 7895, 7896

*Cochliobolus* 2883

enzymes 3955

*Erysiphe* 111, 199, 2883, 2966, 3959, 5925, 5926, 6979, 7902, 7956, 7957, 7958

esterase 6964

flowering 6943

review 62, 10267

GA 1756, 1758, 9471, 10277

gliadin 9446

glucose-6-phosphate dehydrogenase 7939

glutenin 4876, 5901

growth period 95, 9461

hairs 2883, 6916

height 95, 111, 112, 160, 1080, 1756, 1758, 3922, 3936, 4868, 4884, 5879, 7876, 7891, 7934, 8741, 9466, 9471, 10277, 10318

*Heterodera* 8771

hybrid chlorosis 1824, 2918

hybrid necrosis 1824, 6916, 7947

hybridization, intergeneric 5855

inflorescence 4861, 5845

inflorescence, shape 6902, 6916

inflorescence, size 128

internode, length 7891

*Leptosphaeria* 10371

ligule 153, 7956

*Mayetiola* 111, 1106, 2883, 9494

meiosis 2883, 3915, 7919, 8725, 9390

nitrate reductase 111, 5882

peroxidase 1791, 5852

phosphoglucose isomerase 10290

protein 2883, 4900, 10341

*Puccinia* 111, 200, 201, 205, 1698,

1829, 1831, 1832, 1833, 1834, 1836,

1851, 1852, 1853, 1857, 1858, 1860,

1861, 1863, 1864, 1865, 1866, 1869,

1871, 2879, 2883, 2888, 2971, 2972,

2975, 2978, 2979, 2980, 3877, 3959,

3971, 3975, 3978, 3979, 4900, 4901,

4905, 4907, 4910, 4911, 4912, 4914,

4915, 5821, 5843, 5928, 5929, 5931,

5932, 5933, 5934, 6910, 6981, 7959,

7960, 7961, 7962, 7963, 7965, 7966,

8767, 9485, 9491, 10381, 10385,

10386, 10388, 10389, 10390

*Schizaphis* 9492

*Schizaphis* toxin 4917

seed, colour 142

seed, number 2924

seed, shape 128, 6916

seed, texture 2883

spikelets, number 6916

spring and winter habit 7956

stem 7893

sterility and fertility 3909

sterility, male 1794, 7886, 7901



**Genetics contd.***Triticum contd.*

- sterility, male, cytoplasmic 108, 2918, 5888, 5889, 10292
- symposium 1828, 1876
- Tilletia* 111
- vernalization 140, 6941, 7925
- viruses 7969
- yield components 1085
- Uromyces, Phaseolus* 11105
- vegetable crops
  - bacteria 4598
  - fungi 4598
  - viruses 4598
- Vicia*, broad bean
  - anthocyanins 6684
  - flower, colour 3728, 6684
  - inflorescence 4681
  - seed, colour 3728
  - stem, colour 6684
  - tannin 6684
- Uromyces* 11087
- Vicia*, vetch, leaf, shape 464
- Vigna*, cowpea
  - Meloidogyne* 5668
  - seed, anatomy 9408
  - sterility, male 6734, 7753
- Vigna*, minor species
  - chlorophyll 4706
  - flower, colour 7757
  - fruit, colour 7757
  - meiosis 2706
  - seed, colour 3743, 7757
  - seedlings, colour 7757
  - viruses 10127
- Vitis*
  - hermaphroditism 7613
  - sex 3611, 7613
- Zea*, maize 3030, 9540, 9541
  - adenosine diphosphate glucose phosphorylase 4984
  - ADPglucose pyrophosphorylase 6009
  - albumin 9579
  - alcohol dehydrogenase 253, 1953, 3032, 3050, 4013, 4977, 8804, 10440, 10479
  - alcohols 10469
  - aldehydes 10469
  - aminopeptidase 1132, 4977, 7055
  - amylose 10436
  - andrecium, colour 10434
  - anthocyanins 3034, 3053, 4039, 4961, 7035, 8031, 8800
  - anthranilic acid 9571
  - asynapsis 4015
  - carbohydrates 4052
  - carotenoids 7056, 8031
  - catalase 1132, 1946, 1973, 1989, 3042, 4977, 4982, 4983, 7038, 8035
  - chlorophyll 1985, 4016, 4033, 7847
  - chloroplasts 4033
  - Cochliobolus* 2825, 6059, 10501
  - cold, effect of 9587
  - cold resistance 2002
  - colour 9536
  - disease lesion 7067, 7068
  - embryo 5998, 8031, 8807
  - embryo, colour 4961
  - endopeptidase 3032, 4977
  - endosperm, anatomy 4965
  - endosperm, colour 3034, 4957, 4961
  - endosperm, texture 270, 274, 4046, 4053, 5997, 5999, 6048, 7058, 7061, 8047, 10437
  - endosperm, variegation 4955, 4956, 4957, 4958
  - enzymes 5981, 5991, 7856
  - esterase 2856
  - fertility and sterility 4966
  - flavanone synthase 4953
  - flowering 3056
  - globulin 9579
  - glutamate dehydrogenase 8804
  - glutamate oxaloacetate transaminase 4977, 8804
  - growth period 6035
  - habit 6012
  - height 4009, 4035, 6000
  - inflorescence 1959, 9571, 10427
  - isocitrate dehydrogenase 8804, 10463
  - Kabatella* 10500
  - leaf 9536
  - leaf, colour 1984, 4033

**Genetics contd.***Zea, maize contd.*

- lignin 3059, 3060
  - ligule 4028
  - lysine 266, 267, 270, 1992, 1994, 3033, 3056, 4009, 4046, 4053, 4055, 4056, 4057, 5014, 5994, 5997, 7061, 7062, 7063, 7064, 8045, 9579, 10437, 10439
  - malate dehydrogenase 1132, 1945, 1974, 3032, 3035, 3038, 4012, 4954, 4962, 4963, 4977, 4979, 6027, 7033, 8804, 9563, 10463
  - mutation 4014, 4955, 4958, 4959, 7034
  - NDP sugar-starch glucosyltransferase 10428
  - nucleic acids 1948, 4055
  - peroxidase 9542
  - phosphoglucosyltransferase 3032, 8804
  - 6-phosphoglucuronate dehydrogenase 3032, 9562
  - phosphohexose isomerase 3032, 8804
  - photosynthesis 3043
  - porphyrins 1985
  - potassium sulphate 4034
  - proline 8028
  - protein 266, 267, 1994, 4052, 5994
  - protochlorophyllide 1985
  - protoporphyrins 4016
  - Pseudomonas* 2006
  - Puccinia* 6059
  - review 4947
  - root 4986
  - Sclerospora* 2006
  - seed 8807
  - seed, colour 1936, 4028, 5993, 6001, 9543, 10441
  - seed, size 8029
  - seed, texture 10436
  - seedlings 4986
  - Setosphaeria* 241, 1922, 3029, 3074, 4034, 4065, 5007, 6056, 6059, 8021
  - sex 1959
  - starch 8045
  - starch branching enzyme 8818
  - starch synthetase 8818
  - stem 10435
  - sterility, male 1131, 1959, 1960, 9565, 9567
  - sterility, male, cytoplasmic 6041, 9538
  - sucrose synthetase 4978, 8025, 10432
  - sugar 4046, 10436
  - superoxide dismutase 4976
  - threonine 10439
  - transaminase 2856
  - tryptophan 1994, 3033, 5994, 7061
  - UDPglucose : flavonoid 3-O-glucosyltransferase 4039, 4953
  - viruses 10512
  - vivipary 7056
  - wax 10469
  - zein 1034, 5997, 7061, 8045, 9579
  - Zea*, sweet corn
    - endosperm 3084, 9596
    - Setosphaeria* 5020
    - sugar 3084
  - Zizania*, anthocyanins 10623
- Genetics, technique, Cucurbita** 4631
- Genistaeae**
- chemicals, as plant constituents,
    - chromatin 8250
  - history and evolution 8250
- Genome analysis**
- Aegilops* 185, 1780, 6923, 7911, 7912, 9495
  - Aegilops* × *Triticum* 1780, 3913, 6923
  - Agropyron* 2203, 2204, 3230, 3232, 4271, 5199, 6923, 7268, 7269, 7911, 8246, 8247, 8949, 9742
  - Agropyron* × *Elymus* 7269
  - Agropyron* × *Sitanion* 7269
  - Agropyron* × *Triticum* 6923
  - Avena* 1898
  - Brassica* 853, 6614, 7667
  - Brassica*, rape × *Brassica*, turnip 3303
  - Brassica* × *Raphanus* 853
  - crop plants 60
  - Cucumis* 2635
  - Elymus* 8247
  - Elymus* × *Hordeum* 10244
  - Elymus* × *Triticum* 10244
  - Glycine* 7765
  - Gossypium* 6347, 9809

**Genome analysis contd.**

- Hordeum* 5199, 5851, 6923
- Hordeum* × *Triticum* 5851, 6923, 10244
- Ipomoea* 8301
- Raphanus* 853
- Secale* 6923
- Secale* × *Triticum* 6923
- Secale* × *Triticum*, tritcale 6993
- Solanum*, potato 1307
- Triticum* 185, 1070, 1780, 1784, 1791, 6923, 7903, 7911, 7912, 7913, 9495, 10261
- Genotrophs** 9382
- Linum* 3376, 6363, 9014, 9382
- Genotype × environmental interaction** 9377
- Arachis* 649, 2438, 4482, 7506, 9898
- Avena* 228, 1702, 5961
- Beta*, sugar beet 8322, 9030, 9845
- Brassica* 1533
- Brassica*, oil crops 7483, 9053
- Brassica*, rape 3668, 10809
- Brassica*, turnip 871
- Cajanus* 9338
- Camellia* 7477
- Carthamus* 5388, 8370
- Carum* 10192, 11198
- Cicer* 1604
- Dactylis* 1245
- Daucus* 837
- Desmodium* 5241
- Eleusine* 327
- Festuca* 6225, 7259, 8243
- Glycine* 963, 3763, 5683, 6764, 10133
- Gossypium* 2289, 3365, 5301, 6341, 8306, 10707
- Helianthus*, sunflower 3469
- Hibiscus* 6367
- Hordeum* 295, 1702, 2053, 2805, 6080, 7102, 8121
- Larix* 7648
- Lolium* 10632
- Manihot* 2357, 7428
- Nicotiana* 7461, 7462, 10780, 10781
- Oryza* 6168
- Pennisetum* 2064
- Phalaris* 3227
- Phaseolus* 7745, 11094
- Pinus* 5533, 6583, 7635, 7640, 8477, 8480
- Poa* 2190
- Populus* 3627
- Pseudotsuga* 819, 7653
- Psophocarpus* 11190
- Ricinus* 1407
- Rubus*, blackberry 7583
- Secale* × *Triticum*, tritcale 1889
- Solanum*, potato 2255, 4351, 5249, 8279, 8282
- Sorghum* 1192, 8141
- Trifolium*, subterranean clover 7299
- Triticum* 1059, 1081, 1089, 1702, 1762, 1765, 1889, 2886, 2934, 3877, 3931, 4846, 5832, 5853, 5885, 6889, 6934, 6935, 7889, 7899, 7923, 7950, 7961, 8730, 10319
- Vicia*, broad bean 2668, 6693
- Vigna*, cowpea 10112
- Vigna*, minor species 1576, 7756
- Vitis* 3609, 5494
- Zea*, maize 280, 1916, 1995, 4011, 4036, 6020, 8044, 8806, 8824, 10470
- Genotype × environmental interaction, technique**
- Festuca* 3225
- Nicotiana* 6402, 6403
- Triticum* 6897
- Geographical races**
- Abies*, review 817
- Dactylis* 1242
- Festuca* 1242
- Fraxinus* 10031
- Juglans* 6559
- Larix* 5542
- Lolium* 1242
- Picea* 6592, 9203, 10964
- Pinus* 2576, 3637, 3641, 5537, 6589, 6591, 7625, 7639, 8483
- Pseudotsuga* 6595, 7654, 9207
- Solanum*, potato 499
- Vitis* 8444, 8445, 8446



**Geography**

*Abies* 7646  
*Avena* 7990  
*Brassica*, oil crops 3663  
*Dactylis* 6213, 9725  
*Euchlaena* 7065  
*Fagopyrum* 6196  
*Festuca* 3226  
*Hordeum* 1168, 8070, 8122  
*Humulus* 8359  
*Lupinus* 8268  
*Macrotyloma* 6818  
*Medicago* 2218  
*Oryza* 9693, 10614, 10620  
*Phaseolus* 6716  
*Picea* 4591  
*Pinus* 3634, 7639  
*Poa* 3214, 4234  
*Populus* 4580  
*Prunus*, cherry 8407  
*Rubus*, blackberry 5471  
*Salix* 4580  
*Sorghum* 10574  
*Trifolium* 4292  
*Triticum* 1789, 10315  
*Vigna*, minor species 4704, 4705, 6716  
*Zea*, maize 7036, 7065

**Geranium** (see *Pelargonium*)

**Germination**

*Arachis* 2442  
*Beta*, sugar beet 2346, 3388, 3389, 6383, 7424, 7425, 10767  
*Betula* 9185  
*Brassica*, review 863  
*Brassica* × *Eruca* 3665  
*Brassica*, rape 8363  
*Camellia* 7478, 9866  
*Capsicum* 6467  
*Carica* 1469, 9142  
*Cenchrus* 2199  
*Cicer* 1605  
*Citrus*, orange × *Poncirus* 2506  
*Digitaria* (weed) 9737  
*Diplotaxis* 3665  
*Elymus* 430, 6235  
essential oil plants 9902  
*Festuca* 6226  
*Fragaria* 10924  
*Glycine* 1593, 2726, 6760, 10143, 11152, 11153, 11156  
*Hevea* 2459  
*Hordeum* 6071, 8102, 8111  
*Hutera* 3665  
*Hutera* × *Rhynchosinapis* 3665  
*Ipomoea* 521  
*Juglans* 2556  
*Kochia* 478  
*Liquidambar* 803  
*Lolium* 425, 1249  
*Lotus* 473, 4311, 9737  
*Lycopersicon* 2643, 3706, 3711, 8549  
*Malus* 9931  
*Malus* × *Pyrus* 681  
*Medicago* 1256, 2222, 3244  
medicinal plants 9902  
*Moricandia* 3665  
*Morus* 9138  
*Nicotiana* 601, 6408, 7462  
*Oryza* 357, 1219, 2144, 2162, 3183, 5124, 6154, 7192, 8907  
*Pennisetum* 1183  
*Phaseolus* 8581  
*Phleum* 6216, 8941  
*Pisum* 977  
*Poa* 8937  
*Prunus*, peach 3559  
*Pseudotsuga* 8491  
*Psophocarpus* 8646  
*Rubus*, blackberry 5471  
*Saccharum* 6374, 9022  
*Secale* × *Triticum* 2900  
*Solanum*, egg plant 8565  
*Sorghum* 4144, 4161, 5078, 5086, 7139, 7140, 7154, 8143  
*Trichosanthes* 2633  
*Trifolium*, red clover 1256, 7292, 9737  
*Triticum* 1100, 2928, 3929, 3936, 6970, 7932, 7933, 8726, 9448  
*Vaccinium* 8428  
*Vicia*, broad bean 936  
*Vigna*, cowpea 8591  
*Vitis* 8440  
*Xanthosoma* 2359

**Germination contd.**

*Zea*, maize 246, 1973, 1988, 2002, 2003, 3042, 3046, 4040, 4046, 4051, 4060, 4062, 5003, 5982, 7037, 8817, 9574, 9587  
*Zea*, sweet corn 2002

**Germination, technique**

*Beta*, sugar beet 4417, 6385, 8326  
*Nicotiana* 2371  
*Parthenium* 5409

**Germplasm banks** (see also Genetic resources)

*Amaranthus*  
Hungary 2181  
Peru 6855  
*Avena*, Poland 1663  
*Azolla*, Philippines 1686  
*Brassica* 850  
Japan 864  
Spain 864  
Taiwan 1664  
*Brassica*, Chinese cabbage, Taiwan 1664, 3849  
*Brassica*, swede, UK 1299  
*Carum*, Ukrainian SSR 9903  
cereals, Canada 7844  
*Chenopodium*, Peru 6855  
*Cicer*, India 3781  
*Citrus*, Azerbaijan SSR 9957  
*Citrus*, grapefruit, Azerbaijan SSR 9957  
*Citrus*, lemon, Azerbaijan SSR 9957  
*Citrus*, mandarin  
Azerbaijan SSR 9957  
Georgian SSR 9967  
*Citrus*, orange, Azerbaijan SSR 9957  
*Citrus*, pomelo, Azerbaijan SSR 9957  
*Coffea*, Costa Rica 1671  
*Colocasia* 7843  
*Coriandrum*, Ukrainian SSR 9903  
crop plants 7840  
Afghanistan 7844  
Colombia 7844  
Costa Rica 49, 1671  
Cuba 7844  
Czechoslovakia 1658  
Ethiopia 1661  
German Democratic Republic 1654  
German Federal Republic 1655, 1662, 7844  
Israel 1651, 7844  
Italy 1656  
Malawi 7844  
Moldavian SSR 10222  
Netherlands 1657, 3845, 3846  
Nigeria 8677  
Poland 1652  
Portugal 10220, 10221  
review 1670  
Sweden 7844  
Taiwan 1672  
USA 7844  
USSR 40, 45  
Zambia 7844  
*Cucumis*, Netherlands 11036, 11037  
*Cucurbita*, USA 1547  
*Dioscorea* 7843  
Cameroon 7844  
*Echinochloa*, India 7121  
*Eleusine*, India 7121  
*Erianthus*, USA 7408  
*Ficus*, Azerbaijan SSR 10849  
*Foeniculum*, Ukrainian SSR 9903  
forest trees, German Federal Republic 1655  
*Fragaria*, USSR 6475  
fruit crops  
Sweden 4502  
USSR 6472, 6475  
*Glycine* 957  
S. Korea 3757  
Taiwan 1664, 3849  
*Gossypium*  
Pakistan 1333  
USSR 526  
Uzbek SSR 1332, 3338, 3339

grasses  
Hungary 2181  
Poland 1663

*Hordeum*  
Argentina 7844  
Chile 7844  
German Federal Republic 8109  
Japan 7844

**Germplasm banks contd.**

*Hordeum* contd.  
Poland 1663  
Syrian Arab Republic 7844  
USA 8069, 8101

*Ipomoea* 7843  
Taiwan 1664, 3849  
leguminous forage crops  
Hungary 2181  
Poland 1663

*Lupinus*  
Hungary 2181  
Peru 6855

*Lycopersicon*  
Taiwan 1664, 3849  
USA 2636

*Malus*  
Sweden 4502  
Switzerland 7538  
USA 7539  
USSR 6475

*Manihot* 7843  
Colombia 2356  
India 5330  
Zaire 7844

*Medicago* 3256  
Hungary 2181

*Mentha*, Ukrainian SSR 9903

*Miscanthus*, USA 7408

*Musa*  
Malaya 2531  
Thailand 2531

*Ollucus*, Peru 6855

*Oryza* 5092  
Guinea Bissau 7844  
India 7844  
Malaya 2109  
Malaysia 7844  
Philippines 6158, 8153, 8679

*Oxalis*, Peru 6855

*Panicum*  
India 7121  
Ivory Coast 7844

*Paspalum*, India 7121

*Pennisetum*, India 7121

*Phaseolus*  
Kenya 4685  
UK 2685

*Phleum*, Czechoslovakia 4255

*Pinus*, UK 2576

*Pisum* 11179  
Sweden 2739

*Prunus*, cherry, USSR 6475  
*Prunus*, peach, USSR 6475  
*Prunus*, plum, USSR 6475

*Psophocarpus*  
Colombia 8649  
India 8638  
Malaysia 8641  
Papua New Guinea 8679  
Philippines 8630, 8679  
Thailand 8679

pulses 4669, 8569  
Belgium 7844

*Punica*  
Azerbaijan SSR 10849  
Turkmen SSR 1482

*Pyrus*  
Sweden 4502  
USSR 6475

**Rhizobium**  
Colombia 1686  
German Federal Republic 1655  
India 1686  
USA 1686

*Ribes*, black currant, USSR 6475

*Rosa*, Ukrainian SSR 9903

*Saccharum*, USA 7408

*Salvia*, Ukrainian SSR 9903

**Secale**  
German Democratic Republic 4001, 7012  
Poland 1663

*Setaria*, India 7121

*Solanum* 7843  
*Solanum*, potato 7843  
German Federal Republic 1301, 4324  
Netherlands 1301, 4324  
Peru 2252  
Taiwan 1664, 3849  
Turkey 6285

*Sorghum*, India 4115



**Germplasm banks contd.***Theobroma*

Costa Rica 1671  
Ghana 6428

*Triticum*

Poland 1663  
Syrian Arab Republic 7844

*Tropaeolum*, Peru 6855

## vegetable crops

Papua New Guinea 7844  
UK 1519

*Vicia*, broad bean, Syria 6678

*Vicia*, vetch, Hungary 2181

*Vigna*, minor species, Taiwan 1664,  
2703, 3849

*Vitis*, USSR 7606

*Xanthosoma* 7843

*Zea*, maize

Colombia 8793  
Mexico 8679  
Ukrainian SSR 7025  
USA 9540

**Germplasm banks, technique**

*Atropa* 7818

*Citrus* 7818

*Costus* 7818

crop plants 1671, 3849, 5767, 8678, 8679

*Dioscorea* 7818

*Manihot* 579, 2353

*Oryza* 2112

*Rauwolfia* 7818

*Secale* 7012

*Stylosanthes* 5767

*Urochloa* 5767

**Germplasm releases**

*Cucumis*, melon, USA 11005

*Hordeum*, USA 10516, 10521

*Sorghum*

Argentina 8132

France 8132

USA 8132, 10567

*Zea*, maize, USA 10422

**Gibberella**

chemicals, as plant constituents, protease

8064

*Coffea* 7481

*Euchlaena* × *Zea*, maize 9545

*Linum* 5314, 8313, 8314

*Mangifera* 6523

*Sorghum* 4160, 7157

*Triticum* 1848, 4897, 6978, 8710, 10492

*Zea*, maize 1993, 4063, 5008, 6056, 6061,

6062, 7058, 8064, 10498

**Gibberella, technique**

*Ananas* 1481

*Coffea* 3450

*Oryza* 3194

*Zea*, maize 4063, 5010, 6060, 9592

**Ginger (see Zingiber)****Ginkgo**, chromosomes, morphology,

technique 791

**Glands**

*Cannabis* 9830

*Cuphea* 4491

*Gossypium* 528, 3373, 5309, 6362, 9802,  
9824, 10714, 10727

*Humulus* 5369

*Medicago* 4290

*Nicotiana* 6419, 9858, 9859

*Solanum*, potato 10700

**Glass and plastic, cultivation under**

*Brassica*, cauliflower 9243

*Capsicum* 1520

*Cichorium*, endive 11004

crop plants 69

symposium 70

*Cucumis*, cucumber 1549, 3695, 3697,  
3701, 6641, 10068, 10069, 10980

*Cucumis*, melon 1520

*Fragaria* 757

*Lactuca* 4623, 8520

*Lolium* 6221

*Lycopersicon* 906, 1520, 1552, 4636,  
10075, 10980

*Pisum* 6786

*Prunus*, cherry 1452

*Raphanus* 841, 5554

*Solanum*, egg plant 925, 10085

vegetable crops, review 70

**Globe artichoke (see Cynara, globe****artichoke)****Globodera**

genetics, *Solanum*, potato 4359

**Globodera contd.**

*Solanum*, potato 489, 2275, 2276, 2277,

3321, 3332, 4359, 5263, 5795, 6334,

7321, 7345, 7346, 7351, 7354, 7355,

7356, 7357, 7358, 7836

physiological races 3331, 7835, 9794

Latvian SSR 2278

Sweden 4358

UK 9772

**Globodera, technique, Solanum, potato**

514, 515, 6333

**Gloeocercospora, Sorghum** 4157, 7158,

7159

**Gloeocercospora, technique, Sorghum** 7172**Gloeosporium, Prunus, almond** 5510**Glomerella**

*Allium*, leek 4609

*Allium*, onion 4609

*Coffea* 7480

*Lupinus* 3295, 6273

*Manihot* 3415

*Saccharum* 2336, 4410

physiological races, India 10754

*Stylosanthes* 4313, 4314

*Zea*, maize 1137

**Glomus**

*Nicotiana* 10788

*Triticum* 160, 6951

**Glycine**

abscission 3756, 10144

*Acrosternum* 2738, 10153

aneuploidy 58, 3754, 8601

breeding 957

Bangladesh 11130

Brazil 5673

France 1577

India 11127

Indonesia 4710

Kazakh SSR 10129

Malaysia 11126

Moldavian SSR 958

Nepal 11125

S. Korea 4802

Senegal 1578

Taiwan 2712

USA 3764, 5674

USSR 4274

Zambia 11131

cell culture 6755, 6759

cell division 8602

*Cercospora* 3746, 4741, 8597

physiological races, USA 8611

chemicals, as nutrients

iron 3764, 4733, 4734, 5674, 5676,

11162

maltose 6755

miscellaneous 11163

nitrogen 970, 2730, 2731, 2733, 3759,

3761, 3765, 3767, 5697, 6763, 6772,

6774, 10146, 11120, 11121, 11122,

11151, 11159

sucrose 6755

chemicals, as plant constituents

ABA 5794

allantoin 1638

aminoacids 6771, 7772

amylase 5681

α-amylase 10147

β-amylase 5690, 5691, 6760, 6769

ash 11163

carbohydrates 11163

cardiolipin 11141

carotene 7769

chlorophyll 2723, 2735, 4733, 4739,

5689, 5694, 5697, 7769, 7847, 8600,

8602, 9314

coumestrol 1593

cysteine 11157

cystine 1592

fatty acids 1597, 2809, 10147

glutamic acid decarboxylase 10147

glyceollin 973, 1596, 7775, 8612, 8613

glycinin 7771

hemagglutinins 6676

lectins 11136, 11142

leghemoglobin 2730, 2731, 7763, 7770

linoleic acid 4730, 7773

linolenic acid 1597, 4730

lutein 7769

lysine 969, 6771, 6871, 11157

manganese 9315

methionine 1592, 6871

minerals 11158

**Glycine contd.**

chemicals, as plant constituents contd.

neoxanthin 7769

nitrogen 8603, 10146, 10148

nucleic acids 2719, 2730, 2731, 7770,

8604

oil, fatty 965, 1588, 1592, 4720, 4729,

6768, 7773, 8606, 10128, 10137,

11146, 11157, 11158, 11161, 11163

oleic acid 4730, 7773, 11141

palmitic acid 1597, 7773

palmitoleic acid 11141

peroxidase 2728

phospholipids 11141

pigments 968

protease inhibitor 932

protein 965, 968, 969, 1588, 1592,

2733, 3762, 4717, 4720, 6753, 6765,

6768, 6771, 6871, 7772, 8606, 10128,

10137, 11145, 11146, 11157, 11158,

11163

protein, technique 9411

sitosterol 1597

starch 6944

sterols 1597, 7778

stigmaterol 1597

sugar 6944, 11146

triacylglycerol 11141

trypsin 4729

trypsin inhibitor 1592, 6676, 7772,

11136, 11157

trypsin inhibitor, technique 6770

tryptophan 6871

urease 4729

violaxanthin 7769

zinc 9315, 9316

chemicals, cytological effects

dimethyl sulphate 966

ethyleneimine 966

N-nitroso-N-ethylurea 966

chemicals, fertility and sex, effects

6-benzylaminopurine 2724

cytokinins 2724

chemicals, general effects

aluminium 10251

aminoethoxyvinylglycine 6766

cadmium 967

calcium 4733

2,4-DB 6753

ethylene dibromide 7777

glycoprotein 1596

manganese 6776, 10251, 11162

metribuzin 6753

rhizobitoxine 5694

zinc 9315, 9316

chemicals, mutagenic effects

diethyl sulphate 5685

dimethyl sulphate 966, 5685

ethyl methanesulphonate 6755, 11140

ethylene oxide 5685

ethyleneimine 966, 5685, 8599, 10137

furylfuramide 7847

hycanthone 6755

methyl methanesulphonate 6755

N-methyl-N-nitro-N-nitrosoguanidine

6755

N-nitroso-N-ethylurea 966, 5685,

11138

N-nitroso-N-methylurea 3758, 5685

chimeras 4715, 4716, 8600,



*Glycine* contd.

diallel analysis 4728  
*Diaporthe* 3746, 4740  
*Epilachna* 7778  
*Etiella* 1645  
*Euschistus* 2738, 10153  
 experimental designs 2713, 2715  
 flooding 1645  
 flower, colour 7766  
 flower, size 2720  
 flowering 3756, 8605, 10144  
 foliage area 2732  
 foliage area, technique 6761  
 fruit, number 971, 5683  
 fruit, size 3752, 5682  
 fungi 957  
*Fusarium* 4740  
 $\gamma$  rays 965, 966, 969, 1584, 4718, 4722, 4726, 5689, 6759, 8599, 9313  
 genetic variance  
   growth period 10142  
   height 10142  
   lodging 10142  
   yield components 9318  
 genetics  
   amylase 5681  
    $\beta$ -amylase 5690, 5691, 6769  
   chlorophyll 7769, 7847, 8600, 8602, 9314  
   chromosomes, aberrations 9313  
   determinate and indeterminate habit 4736, 10140, 11143  
   development and growth 9313  
   flower, colour 7766  
   flowering 8605  
   fungi 957  
   growth period 4736, 10140  
   hairs 4736  
   hairs, colour 3774, 7766  
   internode 4736  
   iron 4733, 4734  
   leaf, number of parts 4736  
   leaf, shape 4736  
   lectins 11136  
   leghemoglobin 7763  
   nitrogen fixation 5697, 11120  
   *Phakopsora* 1595, 11170  
   *Phytophthora* 5699, 7762  
   protease inhibitor 932  
   *Rhizobium* 970, 3759, 5694, 6766, 11121, 11160  
   *Rotylenchulus* 3772, 11174  
   seed, colour 1586  
   seedlings, colour 8600  
   sterility, male 1591, 3754, 6757, 6758, 7766  
   trypsin inhibitor 6770, 11136  
   viruses 3774, 3775  
 genome analysis 7765  
 genotype  $\times$  environmental interaction 963, 3763, 5683, 6764, 10133  
 germination 1593, 2726, 6760, 10143, 11152, 11153, 11156  
 germplasm banks 957  
   S. Korea 3757  
   Taiwan 1664, 3849  
 grafting 6758  
 growth period 964, 968, 1584, 1592, 2809, 3766, 4711, 4713, 4723, 4725, 4736, 4740, 6749, 6750, 6756, 6762, 6765, 6767, 6777, 7767, 7768, 7778, 8603, 8605, 8606, 8607, 9311, 10136, 10138, 10140, 10141, 10142, 10145, 10149, 10153, 11141, 11149, 11151, 11155, 11161  
 habit 3768, 6765, 11138  
 hairs 4736, 8598  
 hairs, colour 3774, 7766  
 haploidy 3754  
 harvest index 8603  
 heat and drought resistance 959, 972, 1645, 5794, 8608, 11123, 11165  
 height 964, 968, 971, 1584, 2727, 5683, 6750, 6756, 6767, 7767, 7768, 10142, 10146  
*Heliothis* 1597, 1645  
 heritability 962, 3752, 4730, 5682  
   growth period 10142  
   height 10142  
   lodging 10142  
   oil, fatty 10128  
   photosynthesis 11137  
*Heterodera* 7777, 7779, 8598, 11159

*Glycine* contd.*Heterodera* contd.

physiological races  
   Japan 10152  
   USA 3771  
 heterosis 964, 4727  
 history and evolution 932, 4724, 5640, 5686  
 humidity 6760, 11164  
 hybridization, interspecific 957, 2809, 4717, 4732, 6754, 7765  
 ideotype 11128  
 inbreeding 5688  
 internode 4736  
 internode, number 2720  
 internode, size 2725  
*Klebsiella*, nitrogen fixation 11120  
 leaf 1587, 1589  
 leaf, colour 5689  
 leaf, number 2735  
 leaf, number of parts 4736  
 leaf, shape 4736, 10139, 11154  
 leaf, size 1587, 2720, 2725, 2735, 4721, 5638  
 leaf, weight 2735, 5638  
 legislation 11129  
 light, effect of 3756, 4726  
 linkage 3774  
 lodging 968, 3749, 6750, 7767, 10136, 10138, 10142  
 meiosis 2809, 4732, 7765, 7766, 8601  
*Melanogromyza* 1645, 6748  
*Meloidogyne* 957, 973, 4743, 6751, 7777, 8613  
*Microsphaera* 5698, 8597, 8610  
 mitochondria 967  
 mixtures of crops or genotypes 1594, 3762, 3763  
 molecular genetics 2719, 7763, 7770, 8604  
 mutation 1584, 8600, 8605  
   chlorophyll 9314  
 mutation, induced 959, 965, 966, 969, 1584, 5685, 5689, 6755, 7764, 7847, 8599, 10137, 11140  
   habit 11138  
*Nematospore* 11166  
 neutrons 965, 969, 2723, 11138, 11139  
*Nezara* 2738, 10153, 11175  
 nitrogen fixation 970, 2730, 2731, 2733, 3759, 3765, 3767, 5697, 6763, 6774, 10129, 10146, 10148, 11120, 11121, 11122, 11151, 11159  
 nucleus, number 5686  
*Nupserha* 6778  
*Oberia* 3773  
*Ophiomyia* 1645, 6748  
 outcrossing 1590  
 ovule 5640  
 perennial habit 2809  
*Peronospora* 2736  
*Phakopsora* 957, 1645, 2728, 7774, 10151, 11169, 11170  
   physiological races 1595  
*Phialophora* 2737, 3748, 11167  
*Phomopsis* 3768, 3769, 10150, 11171  
*Phomopsis*, technique 10150  
 photoperiodism 3862, 5688, 6767, 6777  
 photosynthesis 1589, 2722, 4721, 5689, 5794, 6944, 10138, 11137, 11147, 11148, 11151  
*Phytophthora* 8598, 11135  
   physiological races 1596, 4742, 5678, 5699, 6753, 7762, 7775, 7776  
   USA 3747, 3748, 3749, 3750, 3751, 11124, 11172  
   physiological races, technique 8612  
*Phytophthora*, technique 4742, 11124, 11173  
*Piezodorus* 11175  
 plant introduction  
   from Asia 3759  
   to USA 3759  
 pollen 1591, 5640  
 pollination, technique 9308  
 polyploidy 2720, 3754, 4720, 7765, 8601  
 protoplasts 1583  
 pruning 5695  
*Pseudomonas* 9319  
 reciprocal effects, manganese 11162  
 respiration 5794

*Glycine* contd.

*Rhizobium* 2730, 2731, 3759, 3762, 5697, 6766, 7770, 9309, 10146, 10148, 11120, 11121, 11131, 11159  
 nitrogen fixation 11120  
 physiological races 970, 1638, 2733, 3761, 3765, 3767, 5693, 5694, 6773, 6774, 11122, 11160  
   India 2734  
   Nigeria 8609  
 root 11121, 11141, 11144  
 root, length 11123  
*Rotylenchulus* 3772, 11174  
 seed 1592, 3768, 6762, 11142, 11155  
 seed, colour 1586, 8599  
 seed, number 10140  
 seed, size 1590, 2721, 2726, 3752, 3770, 8606, 11151  
 seed storage 4735, 10147, 11164  
 seed storage, technique 9309  
 seed, weight 1590, 4727, 5682, 5683, 7768, 10140  
 seedlings 2721, 2726, 6759  
 seedlings, colour 8600  
 selection, artificial 3753, 5682, 6749, 6750, 7760, 10128, 11137  
*Septoria* 9320, 11168  
 shedding 3746, 10136  
 soil moisture 11165  
 soil pH 3764, 3864, 5676  
 sowing and planting date 2729, 3766, 3769, 4713, 4723, 4737, 4740, 6764, 6767, 6775, 7760, 8607, 9311, 10135, 11127, 11161  
 stability 971, 1588, 7773, 10133  
 stability, technique 5684  
 statistics 2715  
 sterility and fertility 4732, 6754, 8601  
 sterility, male 957, 1591, 3754, 4724, 6757, 6758, 7766, 10128, 11141  
 stomata 2720  
 succession, crop 9310, 11168  
 symposium 11119  
 taxonomy 957, 2809, 4732, 5692, 7765  
 temperature, effect of 3756, 6758, 6760, 10143, 11148, 11152, 11153  
 tissue culture 1585, 5687  
 toxic soils 6776, 9315, 9316, 10251, 11162  
 transformation 1583  
 translocation, physiological 11151  
 ultraviolet rays 6755  
 variation 4722, 4731  
 variegation 2723  
 varieties 957  
   Algeria 959  
   Brazil 6752  
   Cuba 10136  
   France 960, 5675  
   Japan 3857  
   Kazakh SSR 10129  
   Mexico 9312  
   Rhodesia 2813  
   S. Korea 1579, 3746  
   USA 1580, 1581, 1582, 3747, 3748, 3749, 3750, 3751, 5676, 5677, 5678, 5679, 5680, 6753, 7762, 8597, 8598, 11135  
   USSR 961, 4714, 10137  
 varieties, classification 3757  
 variety trials  
   Argentina 4713  
   Australia 3745  
   Brazil 10130  
   Cuba 7761, 10135  
   Guatemala 10131  
   Guyana 2716  
   India 4711, 9310, 10133  
   Moldavian SSR 11133  
   Puerto Rico 73  
   Romania 10134  
   Spain 9311, 11132  
   Taiwan 2714  
   Uruguay 2718  
   USA 50, 2717, 3853, 6751, 10132, 11134  
   USSR 4712  
   Yugoslavia 4729  
 viruses 957, 1579, 3746, 3774, 4744, 4745, 6758, 9319, 10154  
 physiological races 4739, 11176  
   S. Korea 3775  
   USSR 7779



**Glycine contd.**

- water balance 5794, 9317, 10145, 11144
- waterlogging 6777
- weeds 3770
- X rays 965, 969, 8602
- Xanthomonas* 8597, 8598, 10136, 11135
- yield 7767
- yield components 964, 965, 972, 1588, 2713, 2718, 2727, 3766, 4717, 4720, 4727, 4728, 6749, 6756, 6762, 9318, 10138, 11149

**Glycine - Nicotiana**

- chemicals, as plant constituents, aspartate aminotransferase 1373
- chromosomes, elimination 1373
- protoplast fusion 1373

**Glycine - Oryza**, protoplast fusion 10595**Glycyrrhiza**, chromosomes, number 9744**Gnomonia**, *Juglans* 786**Gnomonia**, technique, *Ulmus* 10951**Godronia**, *Vaccinium* 3597**Gonatobotrys**, *Sorghum* 1193**Gooseberry** (see *Ribes*, gooseberry)**Gossypoides**, taxonomy 2305**Gossypium**

- altitude 4368
- Amrasca* 2314, 5310, 8304, 10725
- andrecium 4380
- aneuploidy 3355, 4371, 5291, 6344
- Anomis* 9008
- anther, colour 5308
- anther culture 7370, 9002
- Anthonomus* 1352, 2315, 6361
- Aphis* 533
- apomixis 5297
- Aspergillus* 8309
- asynapsis 4376
- $\beta$  rays 1342
- back crossing 541, 3343, 7382, 10723
- bracts 528, 1352, 2807, 5296, 9802
- breeding
  - book 7372
  - India 10702
  - Pakistan 1333, 7366, 8989
  - Turkmen SSR 525
  - USA 1334, 1335, 1336, 1337, 3344, 3345, 5279, 6342
  - USSR 1338, 4369, 5278
  - book 8988
  - Uzbek SSR 3342
- breeding, technique 9803
- calyx 2294
- canopy 1343
- cell culture 2298
- Cercospora* 2313
- chemicals, as nutrients, miscellaneous 4370
- chemicals, as plant constituents
  - anthocyanins 7377, 10717
  - carbohydrates 2308
  - chlorophyll 2297, 9808
  - enzymes 2303
  - fatty acids 65, 9822
  - gossypol 3372, 5308, 5309, 9823, 10714, 10727
  - nitrogen 2308
  - nucleic acids 4377, 5282, 7381
  - oil, fatty 529, 1348, 3340, 6346, 10711
  - peroxidase 2310, 9817
  - phosphorus 538
  - protein 9814
  - ribulose 1,5-diphosphate carboxylase 2296, 4380
  - tannin 5308, 6360
  - terpenoids 6361
- chemicals, cytological effects, ethyleneimine 531
- chemicals, fertility and sex, effects
  - boric acid 4374
  - colchicine 3360
- chemicals, general effects
  - aluminium 3361, 10719
  - atrazine 9821
  - ethyleneimine 533
  - glyphosate 3345
  - gossypol 3373
  - insecticides 7394
  - magnesium 3361
  - manganese 9818
  - propazine 9821
- chemicals, mutagenic effects
  - alkylating agents 2300
  - 1,4-bisdiazoacetylbutane 546, 7383

**Gossypium contd.**

- chemicals, mutagenic effects contd.
  - colchicine 3359, 7374
  - diethyl sulphate 544
  - dimethyl sulphate 544, 7383
  - ethyleneimine 544, 1341, 7383, 10708
  - N*-nitroso-*N*-dimethylurea 546
  - N*-nitroso-*N*-ethylurea 7383
  - N*-nitroso-*N*-methylurea 544, 1341, 7383, 10708
- chiasmata 6347
- chloroplasts 547, 4380
- chloroplasts, number 2297
- chloroplasts, size 7388
- chromosome translocation 5290, 6347, 6348
- chromosomes, aberrations 3356
- chromosomes, addition and substitution 1328
- chromosomes, morphology 7371
- chromosomes, morphology, technique 5289
- cleistogamy 7378
- cold, effect of 545, 3354, 9817
- cold resistance 9817
- colour 9802, 10717
- combining ability 529, 554, 1340, 2288, 2290, 2311, 3366, 4370, 4379, 4393, 5283, 5299, 6263, 7375, 7376, 7382, 7390, 9806
- fruit, number 9816
- fruit, weight 9816
- growth period 10724
- quality, of fibre 9005, 10718
- seed, number 9816
- Verticillium* 10724
- yield components 9816, 10712, 10716
- competition 4385, 6356, 10720
- computer simulation 539
- cuttings 2285
- cytoplasmic inheritance 4380, 6357
- defoliation, artificial 1336
- density of stand 4385, 6356, 9806, 10720
- determinate and indeterminate habit 9813
- development and growth 540, 9003
- diallel analysis 529, 1340, 2288, 2311, 4393, 5283
- dominance 2288
- Dysdercus* 9823
- Earias* 3373, 8996
- embryo culture 531, 3346
- embryo sac 8305
- environment 6341
- epidermis 5296
- experimental designs 10705
- flower 8305, 9001
- flowering 5292
- Frankliniella* 1352
- fruit 3365
- fruit, number 548, 7376, 7387, 9816, 10713
- fruit, size 530, 531, 533, 543, 544, 545, 3340, 3343, 3352, 4372, 4378, 5284, 5295
- fruit, weight 542, 548, 3357, 3359, 7376, 9004, 9803, 9811, 9812, 9816
- Fusarium* 552, 1331, 1687, 3368, 4389, 4391, 5277, 5280, 6263, 9820, 10723
- physiological races
  - Paraguay 4388
  - Turkmen SSR 7393
- Fusarium*, technique 2312
- fuzz 526, 2295, 9814, 10717
- $\gamma$  rays 544, 545, 550, 1342, 1348, 2300, 2743, 3341, 3350, 3354, 3356, 3360, 4375, 6351, 7368, 7374, 8304, 8990, 9004
- gene interaction 549, 2288
- gene location 4371, 6344
- genetic variance 6345, 6353, 7375
- quality, of fibre 10718
- yield components 9815, 10712, 10716
- genetics 3338, 7372
  - anthocyanins 7377, 10717
  - book 526
  - bracts 528, 9802
  - calyx 2294
  - cleistogamy 7378
  - colour 9802, 10717
  - Fusarium* 10723
  - fuzz 526, 2295
  - glands 528, 9802

**Gossypium contd.**

- genetics contd.
  - growth period 8997
  - hairs 4394, 7378, 10726
  - leaf 9802, 10717
  - leaf, colour 7377
  - leaf, shape 3358, 6356
  - leaf, texture 5287
  - nectar 528, 6356, 8308, 9802
  - pollen, colour 555
  - stem, colour 7377
  - sterility, male, cytoplasmic 537, 1335, 3344
- Verticillium* 5303
- Xanthomonas* 2309, 8994
- genome analysis 6347, 9809
- genotype  $\times$  environmental interaction 2289, 3365, 5301, 6341, 8306, 10707
- germplasm banks
  - Pakistan 1333
  - USSR 526
  - Uzbek SSR 1332, 3338, 3339
- glands 528, 3373, 5309, 6362, 9802, 9824, 10714, 10727
- growth period 530, 542, 545, 546, 1330, 2297, 2300, 2800, 2807, 3340, 3350, 3357, 3358, 3359, 4378, 5292, 5302, 6343, 6345, 6354, 6362, 7388, 8999, 9004, 9803, 9812, 9813, 10724, 10728
- growth period, technique 8997
- gynecium 8305
- habit 545, 546, 551, 3340, 4383, 7380, 10717
- hairs 546, 1352, 4373, 4394, 5296, 6362, 7368, 7378, 8304, 10725, 10726, 10727
- haploidy 4373
- review 5288
- harvesting, mechanical 2300
- heat and drought resistance 5301, 9819
- heat, effect of 545, 3356, 9810
- height 530, 551, 4368, 5295, 5300, 5310, 6342, 7368, 7380, 7386, 7387, 9003, 9805
- Heliothis* 555, 4394, 5308, 5309, 9009, 10727
- heritability 2302, 2311, 3365, 4379, 5283, 5293, 5301, 6263, 6346, 6353, 7387
- heterosis 530, 532, 534, 1340, 2289, 2290, 4379, 5286, 7376, 7380, 8992, 8993, 9806
- fruit, weight 9816
- height 9003
- quality, of fibre 9005
- yield components 10709, 10712, 10716
- history and evolution 2307, 4369, 4382, 6347
- hybrid varieties 2291
- hybridization 5285, 5295, 6358, 9803, 9807
- hybridization, interspecific 530, 531, 532, 533, 534, 1328, 1330, 1331, 1340, 2287, 2290, 2294, 3344, 3346, 3347, 3349, 3350, 3351, 3352, 3353, 3360, 3366, 4372, 4373, 4374, 4376, 4380, 4390, 5282, 5284, 5285, 5303, 6347, 6349, 7378, 7381, 7382, 7385, 7387, 7391, 7392, 8305, 8684, 9808, 9809, 9813, 10708, 10710
- hybridization, interspecific, technique 3348
- inbreeding 1328
- infrared rays 3371
- insects 531, 532, 1351, 2800, 4814, 7368, 9822
- review 10726
- insects, technique 5307
- internode, size 5310
- irrigation 6355
- leaf 2300, 5296, 9802, 10717, 10729
- leaf, anatomy 7388
- leaf, colour 7377
- leaf fall 536, 3340, 9808
- leaf, number 5310
- leaf, shape 539, 1343, 2807, 3358, 4373, 6350, 6356, 9808, 10717
- leaf, size 1343
- leaf, size, technique 1347
- leaf, texture 5287
- leaf, weight 1343
- light, effect of 4372
- linkage 528, 4371, 6344
- Lygus* 6359, 9824



**Gossypium contd.**

meiosis 1328, 2293, 4373, 6347, 7384, 9809, 10710  
**Meloidogyne** 552, 4391, 4392, 9820  
 mixtures of crops or genotypes 4385, 10720  
 molecular genetics 5282, 7381  
 mutation 2296, 2303, 4377, 5287, 7378, 7388  
   colour 10717  
   flower 9001  
   fuzz 10717  
   habit 10717  
   leaf 10717  
   leaf, shape 10717  
 mutation, induced 544, 545, 546, 547, 550, 1341, 1342, 1348, 2300, 2743, 3340, 3350, 3354, 3359, 4375, 5295, 5300, 6349, 6351, 6354, 7367, 7368, 7369, 7374, 7383, 7846, 8304, 8996, 9817, 10708  
   fruit, weight 9004  
   growth period 9004  
   quality, of fibre 9004  
 nectar 528, 540, 2807, 6356, 8308, 9802  
 neutrons 3360  
 parthenocarp 5297  
**Pectinophora** 554, 4393, 6362, 7394, 8996, 10728  
 photoperiodism 531, 533, 2306, 3362, 6354, 8304  
 photosynthesis 1343, 2297, 6350  
 pollen 10715  
   pollen, colour 555  
   pollen, size 535  
   pollination 3363  
 polyploidy 531, 533, 535, 1328, 2293, 7384, 7385, 9809, 10710  
   quality, for industrial processing 2304  
   quality, of fibre 530, 531, 532, 533, 542, 548, 549, 1334, 1336, 1337, 1340, 2300, 2302, 2303, 2807, 3340, 3347, 3350, 3351, 3352, 3357, 3358, 3365, 3366, 3367, 4369, 4378, 4381, 4382, 4383, 4384, 4390, 5277, 5284, 5285, 5294, 5295, 5297, 5298, 6351, 6352, 6354, 6355, 7368, 7375, 7380, 7382, 7386, 8304, 8307, 9004, 9005, 9803, 9811, 9812, 9814, 10710, 10713, 10718  
 radiation 547, 3340, 5295, 6349, 7367, 7369, 9817  
 recombination 528, 4372, 6344  
 red leaf 2308  
 respiration 7388  
 root, size 6263  
 rooting capacity 2285  
 salinity 68, 550  
 seed 549, 4367, 6346  
   seed, number 543, 6349, 9816  
   seed, size 3357, 3365  
   seed storage 1341  
   seed, weight 543  
 seedlings 3371, 9808  
 selection, artificial 4368, 5293, 5294, 6341, 6352, 9804, 9805  
 selection, natural 4368  
 soil pH 10719  
 sowing and planting date 3364, 8995  
 specific gravity 4367  
**Spodoptera** 3372  
 stability 10707  
 stem, colour 7377  
 stem, number 7369  
 sterility and fertility 541, 545, 546, 3346, 4376, 8990, 9810  
 sterility, male 2291, 3360  
 sterility, male, cytoplasmic 537, 1335, 3344, 4380  
 sterility, self 9804  
 stunting 8995  
 taxonomy 2305, 2307, 7372, 7389  
 temperature, effect of 545, 3364, 8993  
**Tetranychus** 3374, 6360, 10729  
 tissue culture 1349, 2298  
 toxic soils 3361, 9818, 10719  
 transformation 9000  
 translocation, physiological 2308  
 varieties 7846  
   Azerbaijan SSR 7374  
   China 5280  
   India 1339, 8304  
   Rhodesia 2813  
   USA 5281

**Gossypium contd.**

varieties contd.  
 USSR 8999  
 variety trials  
   Brazil 6343  
   India 2287, 8303, 10704  
   Pakistan 8991  
   Spain 10703  
   USA 50, 2286, 3853, 7373, 8302  
   Uzbek SSR 527  
 variety trials, technique 10705  
**Verticillium** 533, 1687, 2313, 4367, 5285, 5302, 10724  
   book 4387  
   physiological races 1350, 3369, 3370, 4386, 4390, 5303, 5304, 5306, 7392, 10722  
   **Verticillium**, technique 5304  
   water balance 6350, 8998, 9819  
 wilt, unspecified 531, 544, 2300, 2311, 3340, 3352, 3353, 3363, 5295, 6354, 6358, 7382, 7391, 9803, 9812  
   physiological races 553, 7390  
 wilt, unspecified, technique 3371, 5305  
 wind 3365  
**Xanthomonas** 1349, 2310, 6357, 9007, 9820  
   physiological races 2309, 10721  
   India 9006  
   Pakistan 8994  
 yield components 534, 539, 540, 548, 1340, 1344, 1345, 1346, 2299, 2301, 4379, 4383, 5283, 5293, 5298, 5299, 6351, 6352, 6353, 7375, 7380, 7382, 7386, 7387, 8306, 8307, 8308, 8990, 8992, 8993, 9004, 9803, 9805, 9811, 9812, 9815, 9816, 10709, 10712, 10716  
**Gossypium** × **Althaea**, hybridization, intergeneric 2292  
**Gossypium** × **Hibiscus**  
   **Amrasca** 7379  
   heat and drought resistance 7379  
   hybridization, intergeneric 2292, 7379  
   meiosis 7379  
   sterility and fertility 7379  
**Gossypium** × **Malva**, hybridization, intergeneric 2292  
**Gourds** (see Cucurbits)  
**Grafting**  
   **Citrus**, orange 10888, 10889  
   **Cucumis**, cucumber 8539  
   **Diospyros** 1467  
   **Glycine** 6758  
   **Hevea** 2459  
   **Lycopersicon** 823  
   **Malus** 3528  
   **Nicotiana** 823, 4445  
   **Pinus** 790  
   **Pyrus** 1447  
   **Solanum** 823  
   **Solanum**, egg plant 823  
   **Solanum**, potato 823  
 Grafting, technique, **Citrus**, orange 9130  
**Grain** (see Seed)  
**Grain shrivelling**  
   **Secale** × **Triticum**, tritcale 9383  
   review 1108  
**Gram** (see **Macrotyloma**; **Vigna**, minor species)  
   see **Cicer**  
**Grape** (see **Vitis**)  
**Grapefruit** (see **Citrus**, grapefruit)  
**Graphocephala**, **Vitis** 10939  
**Grasses**  
   andrecium 10626  
   apomixis 10626  
   breeding  
     Japan 9372  
     review 2180  
     Switzerland 5152  
     symposium 4235  
     USSR 43, 412, 7225  
   breeding, technique 4236  
   chemicals, as nutrients, nitrogen 5159  
   chemicals, as plant constituents  
     carbohydrates 6204  
     carbohydrates, technique 4241, 5785, 8227  
     cyanogenetic compounds 7228  
     nitrate reductase 7228  
     nucleic acids 4239  
     phosphorus 4238  
     protein 5159, 7228, 7232

**Grasses contd.**

chemicals, general effects  
   nitrogen dioxide 5160  
   ozone 5160  
   sulphur dioxide 5160  
 chromosomes, morphology 4239  
 chromosomes, number 3861, 4239, 10228  
 cleistogamy 10626  
 cold resistance 4247, 6203  
   review 7237  
 digestibility 4244  
 digestibility, technique 5158, 5785  
 experimental designs 411  
 flower 10626  
 flowering 10626  
   review 62  
 genetic resources 2180, 2182, 4234  
 genetics, flowering, review 62  
 germplasm banks  
   Hungary 2181  
   Poland 1663  
 growth period 7231  
 gynecium 10625, 10626  
 hermaphroditism 10626  
 heterosis, technique 4238  
 lawns and sports turf 7237  
 mechanical injury 7237  
 nondisjunction 3208  
 palatability, technique 4244  
 physiology 8223, 8224  
 plant introduction, to Japan 9372  
 pollen 10625  
 pollination 10626  
   review 10625  
 pollution, atmospheric 5160  
**Puccinia**, physiological races, Israel 5161  
 quality, symposium 7236  
 quality, for nutrition 7231, 8227  
 salinity 7238  
 seed production 6874  
 sexual reproduction, review 10626  
 snow mould, unspecified 6204  
 sterility and fertility 8225, 10626  
 sterility, self 10625, 10626  
 temperature, effect of 7237  
 variety trials, Denmark 3840  
 waterlogging 7237  
 yield components 8223, 8224  
**Gravity**  
   **Lycopersicon** 893  
   **Zea**, maize 4048  
**Grazing**  
   **Brassica**, kale × **Raphanus** 3662  
   **Medicago** 2216, 3253  
   **Panicum** 2062  
   **Phleum** 2194  
   **Trifolium**, white clover 1284  
**Gremmeniella**  
   **Pinus**  
     physiological races  
       Canada 8485  
       USA 10962  
**Grewia**, pollen 2534  
**Groundnut** (see **Arachis**)  
**Growth** (see Development and growth)  
**Growth period** (see also Seasonal growth; Spring and winter habit)  
   **Aegilops** × **Triticum** 1775, 8728  
   **Allium**, leek 2604  
   **Allium**, onion 3656, 6609, 8509  
   **Anethum** 3799  
   **Arachis** 4485, 8373  
   **Avena** 1901, 3996, 4930, 4931, 7986, 9510, 10409  
   **Beta**, sugar beet 2343, 4413, 9842  
   **Brassica**, Brussels sprouts 3685, 5593  
   **Brassica**, cabbage 5589, 9240  
   **Brassica**, cauliflower 4621  
   **Brassica**, Chinese cabbage 4616  
   **Brassica**, oil crops 632, 3452, 4462, 9057  
   **Brassica**, rape 3457, 6434, 9054, 10809  
   **Cajanus** 3796, 3797, 3798, 9338, 11192  
   **Camellia** 9046  
   **Cannabis** 2318  
   **Capsicum** 3485, 7522  
   **Carthamus** 2425  
   **Carum** 10192, 11198  
   **Chenopodium** 6200  
   **Cicer** 986, 5711, 10181  
   **Citrus**, mandarin 724  
   **Citrus**, tangerine 5457  
   **Corchorus** 8316  
   **Coriandrum** 10193



Growth period *contd.*

*Cucumis*, cucumber 2631, 7687, 8532  
*Cucumis*, melon 4627  
*Cynara*, globe artichoke 11072  
*Dactylis* 1245, 6212, 8226  
*Daucus* 9226  
*Eleusine* 2074, 10566  
*Eragrostis* 9738  
*Euchlaena* × *Zea*, maize 9545  
*Fagopyrum* 4231, 6196, 9716, 9717  
*Festuca* 9736  
*Foeniculum* 10193  
*Fragaria* 7593  
*Glycine* 964, 968, 1584, 1592, 2809, 3766, 4711, 4713, 4723, 4725, 4736, 4740, 6749, 6750, 6756, 6762, 6765, 6767, 6777, 7767, 7768, 7778, 8603, 8605, 8606, 8607, 9311, 10136, 10138, 10140, 10141, 10142, 10145, 10149, 10153, 11141, 11149, 11151, 11155, 11161  
*Gossypium* 530, 542, 545, 546, 1330, 2297, 2300, 2800, 2807, 3340, 3350, 3357, 3358, 3359, 4378, 5292, 5302, 6343, 6345, 6354, 6362, 7388, 8999, 9004, 9803, 9812, 9813, 10724, 10728  
*grasses* 7231  
*Helianthus*, sunflower 2411, 2418, 6445, 6449, 9065, 9891  
*Hevea* 8382  
*Hibiscus* 1357, 2322, 2326, 5316, 6367  
*Hippophae* 4560  
*Hordeum* 302, 305, 2046, 2852, 4093, 4102, 6080, 6083, 7101, 8075, 8087, 8115, 8849, 9410  
*Humulus* 5367  
*Ipomoea* 522, 2282, 7364  
*Lablab* 989  
*Lathyrus* 9765  
*Linum* 556, 2316, 5312, 9010, 9410, 9826, 9827  
*Lolium* 2195, 4261, 5184, 6202, 7251, 8236, 10632  
*Lotus* 4310  
*Lupinus* 3293, 4306, 9759  
*Lycopersicon* 905, 1517, 2646, 4643, 4647, 4648, 5618, 5623, 6661, 7698, 7701, 7702, 7711  
*Lycopersicon* × *Solanum* 8545  
*Macrotyloma* 6818  
*Medicago* 447, 1261, 2216, 2223, 4278, 5215, 6245, 9749  
*Nicotiana* 604, 1374, 2361, 4436, 4439, 5347, 5351, 7457, 7458, 7461, 9862, 10780, 10781, 10782, 10785, 10786  
*Oryza* 361, 1219, 1226, 1229, 1632, 2113, 2138, 2140, 2144, 2173, 3158, 3159, 3163, 4189, 4216, 5099, 5127, 6148, 6153, 6154, 7184, 7190, 7214, 7216, 8158, 8162, 8214, 8674, 8886, 8902, 8903, 9652, 9657, 9664, 9667, 9668, 9685, 9687, 9688, 9702, 10605, 10609, 10612  
*Panicum* 322  
*Papaver* 1389  
*Pennisetum* 5065, 8672, 10562  
*Phalaris* 4268  
*Phaseolus* 1650, 2687, 4686, 6704, 6710, 6711, 7740, 8578, 8582  
*Phleum* 5172  
*Pimpinella* 10193  
*Pisum* 1603, 1650, 4746, 6780, 6786, 6787, 7780, 7784, 9325  
*Poa* 8937  
*Prunus*, cherry 9946  
*Prunus*, peach 8412, 9101  
*Prunus*, plum 9922, 9940  
*Psophocarpus* 5714, 6801, 6808, 6809, 8628, 8632, 8639, 8642, 8643, 11190  
*Pyrus* 694, 9922  
*Raphanus* 10988  
*Ribes*, black currant 9983, 10914, 10915  
*Ribes*, red currant 10914  
*Rubus*, blackberry 5471, 7583  
*Rubus*, raspberry 1473, 3499  
*Saccharum* 5318  
*Secale* × *Triticum*, triticaire 1881, 2991  
*Sesamum* 6441, 10817  
*Solanum* 662  
*Solanum*, egg plant 2657, 2658, 9285  
*Solanum*, potato 2261, 3317, 3331, 6298, 6311, 7322, 7326, 8275, 8279, 8979  
*Sorghastrum* 4243, 8248, 9743

Growth period *contd.*

*Sorghum* 2087, 2088, 2089, 3143, 3150, 6123, 7125, 7127, 7136, 8132, 8134, 8137, 8138, 8140, 8143, 8881, 9642, 9643, 9645, 10571, 10574  
*Trifolium*, minor species 9756  
*Trifolium*, red clover 2231, 5229, 9754  
*Trifolium*, subterranean clover 3287, 4298, 4299, 5232  
*Trifolium*, white clover 2237  
*Triticum* 81, 95, 120, 144, 159, 161, 166, 1084, 1107, 1707, 1749, 1760, 1761, 1765, 1777, 1788, 1792, 1796, 1822, 1850, 2921, 2923, 2929, 2930, 2940, 3889, 3892, 3898, 3926, 3934, 3956, 4849, 4862, 4865, 5834, 5873, 5875, 5892, 5902, 6896, 6912, 6941, 7888, 7889, 7925, 7927, 8727, 8728, 9441, 9448, 9461, 10257, 10291, 10311, 10315, 10320, 10355, 10356  
*Vaccinium* 2527, 4552, 6533  
*Vicia*, broad bean 2680, 4681, 7734, 10092  
*Vicia*, vetch 465, 3290  
*Vigna*, cowpea 6737, 10115, 10116, 11109  
*Vigna*, minor species 952, 1644, 4704, 4705, 4706, 8594, 8595, 10122, 10123, 11116  
*Vitis* 778, 2548, 2554, 9101, 9161  
*Zea*, maize 254, 255, 256, 258, 259, 269, 1138, 1631, 1916, 1929, 1936, 1938, 1949, 1965, 1972, 1981, 1997, 2009, 3025, 3026, 3041, 3051, 3053, 3062, 4008, 4029, 4030, 4031, 4036, 4041, 4968, 4991, 4993, 5987, 5992, 6003, 6020, 6022, 6031, 6032, 6035, 7021, 7024, 7025, 7027, 7028, 7036, 7049, 7054, 7060, 8038, 8794, 9520, 9522, 9530, 9537, 9548, 9564, 9576, 10471, 10472, 10476, 10478, 10506  
*Zea*, popcorn 1141  
*Zea*, sweet corn 8066  
*Zingiber* 10844  
*Zizania* 4233  
*Zizyphus* 9149  
**Growth period, technique**  
*Avena* 9509  
*Gossypium* 8997  
*Guava* (see *Psidium*)  
*Guayule* (see *Parthenium*)  
*Guignardia*, *Larix* 6594  
*Guilielma*, chromosomes, number 4798  
*Guizotia*  
chemicals, as plant constituents, oil, fatty 9083  
variety trials, India 9083  
yield components 9083  
**Gynecium** 8669  
*Actinidia* 2538  
*Arrhenatherum* 3233  
*Brassica* 6615, 6616  
*Brassica*, rape 2401  
*Cenchrus* 3229  
*Cola* 9051  
*Cucumis*, cucumber 7692  
*Fragaria* 757  
*Gossypium* 8305  
*grasses* 10625, 10626  
*Helianthus*, sunflower 2415  
*Hordeum* 18, 8074, 8116  
*Lotus* 1291  
*Lycopersicon* 2644, 2648, 4645, 8548  
*Medicago* 5219  
*Nicotiana* 8341, 9036  
*Petunia* 6847  
*Phoenix* 4542  
*Psophocarpus* 8651  
*Punica* 1485  
*Raphanus* 6616  
*Rubus*, raspberry 8423  
*Saccharum* 7414  
*Secale* 18  
*Secale* × *Triticum*, triticaire 13  
*Triticum* 13  
*Vitis* 4566  
*Zea*, maize 7043, 10433  
**Gynecium, colour**  
*Brassica* 1533  
*Nicotiana* 8333  
*Oryza* 2121  
*Stenotaphrum* 1254  
**Gynecium, length, Oryza** 9692

**Gynecium, number, Trifolium, white clover** 10673**Gynecium, size**

*Fagopyrum* 1241, 10621  
*Luffa* 5615  
*Oryza* 10601

**Habit**

*Acer* 804, 9187  
*Allium*, onion × *Allium*, shallot 5557  
*Arachis* 650, 1414, 2439, 2795, 4483, 5392, 6458, 9078, 9899  
*Asparagus* 7666  
*Beta*, sugar beet 9842  
*Brassica* 1535  
*Brassica*, cauliflower 5592  
*Brassica*, oil crops 632  
*Brassica*, rape 632, 3456  
*Cajanus* 3796, 4760  
*Camellia* 2393  
*Carthamus* 2425  
*Cedrus* 10041  
*Chaenomeles* 2485  
*Chenopodium* 6200  
*Cicer* 986, 2749, 10180  
*Citrus*, lemon 725, 10218  
*Coffea* 9048  
*Corchorus* 8317  
crop plants 4814  
*Cucumis*, melon 5601, 5602  
*Cuphea* 4490, 4491  
*Cymbopogon* 2445  
*Cynara*, globe artichoke 8567  
*Fagopyrum* 9715, 9716  
*Festuca* 5191, 5192  
*Glycine* 3768, 6765, 11138  
*Gossypium* 545, 546, 551, 3340, 4383, 7380, 10717  
*Helianthus*, sunflower 639, 1410, 9883  
*Hordeum* 296, 6080  
*Humulus* 5367  
*Lathyrus* 9764  
*Lens* 10184  
*Lespedeza* 10677  
*Lolium* 7249  
*Lotus* 4310  
*Lycopersicon* 1517, 4646, 6660, 8552, 10978  
*Macroptilium* 3724  
*Malus* 2476, 3497, 3525, 4511, 9928  
*Manihot* 2358, 3405  
*Medicago* 447, 4277, 6245, 9749  
*Morus* 9137  
*Oryza* 2106, 3158, 3172, 4203, 4218, 5098, 5105, 5108  
*Phaseolus* 2687, 6710, 6714, 8576, 10099  
*Picea* 7645, 9205  
*Pinus* 7635, 7638  
*Pisum* 7780, 11178  
*Prunus*, apricot × *Prunus*, cherry 2487  
*Prunus*, cherry 2493  
*Prunus*, plum 708, 5436  
*Psophocarpus* 6800, 6801  
*Rubus*, raspberry 741, 9978  
*Secale* × *Triticum*, triticaire 221  
*Setaria* 10557  
*Solanum*, potato 4337  
*Sorghum* 2081  
*Stenotaphrum* 6237  
*Trifolium*, red clover 4277  
*Trifolium*, subterranean clover 6266  
*Triticum* 1107, 5870, 6927, 7922  
*Vicia*, broad bean 4671  
*Vigna*, cowpea 3724, 7752  
*Vigna*, minor species 3744, 11117  
*Zea*, maize 1631, 6012, 8030  
review 1130  
*Zizyphus* 9149  
**Habit, technique**  
crop plants 9337  
*Macrotyloma* 9337  
*Oryza* 5104  
**Hail, Hordeum** 4102  
**Hairs**  
*Arachis* 4483  
*Atylosia* × *Cajanus* 2797  
*Avena* 1899, 3008  
*Brassica*, oil crops 633, 5371  
*Bromus* 6217  
*Citrus*, grapefruit × *Poncirus* 726  
*Citrus*, lemon × *Poncirus* 726  
*Citrus*, mandarin × *Poncirus* 726  
*Citrus*, orange × *Poncirus* 726



**Hairs contd.**

- Citrus*, pomelo × *Poncirus* 726  
*Cucumis*, cucumber 888, 4633, 11026  
*Cucumis*, melon 9249, 11006  
*Cuphea* 4490  
*Daucus* 5546  
*Festuca* 6227  
*Fortunella* × *Poncirus* 726  
*Fragaria* 3602  
*Glycine* 4736, 8598  
*Gossypium* 546, 1352, 4373, 4394, 5296, 6362, 7368, 7378, 8304, 10725, 10726, 10727  
*Hordeum* 4832  
*Humulus* 5369  
*Lycopersicon* 6666, 8562  
*Malus* 5432  
*Medicago* 4290  
*Nicotiana* 9858, 9859  
*Oryza* 1219, 4218, 9664  
*Phaseolus* 10098  
*Quercus* 10947  
*Raphanus* 842, 3654  
*Salix* 5529  
*Secale* 10419  
*Secale* × *Triticum*, triticales 221  
*Sesamum* 6441  
*Sinapis* 6439  
*Solanum*, potato 499, 5265, 9796, 10700  
*Sorghum* 2794, 5088, 8885, 9641  
*Triticum* 120, 1107, 1792, 2883, 2916, 2986, 4832, 4919, 6916, 8764, 8773  
*Vicia*, vetch 1287  
*Vitis* 1492
- Hairs, colour, Glycine** 3774, 7766  
**Haloxylon**, polymorphism 6564  
**Haploidy** 11, 12, 9385, 9389  
*Aegilops* 1069  
*Agropyron* × *Triticum* 2894, 2895  
*Atropa* 7528  
*Beta* 5325  
*Beta*, sugar beet 5327, 9840  
*Brassica*, cabbage 2612  
*Brassica*, Chinese cabbage 3679  
*Brassica*, oil crops 7484  
*Brassica*, rape 1400, 3454, 5577, 9409, 10810  
*Brassica*, turnip 6280  
*Bromus* 3219  
*Cajanus* 5713  
*Camellia* 2392  
*Capsicum* 1417, 1418, 2586, 8379, 9906  
cereals 3881  
*Citrus* 4536  
crop plants 8686, 9397  
review 5781, 10205  
*Datura* 4790, 5407, 9350  
*Festuca* 426, 5193  
*Glycine* 3754  
*Gossypium* 4373  
review 5288  
*Hevea* 9099  
*Hordeum* 1016, 1629, 2043, 4083, 4088, 5805, 6070, 6089, 6850, 7097, 8090, 8094, 8847, 9605  
review 5781  
*Hordeum* × *Secale* 4087  
*Hordeum* × *Triticum* 2897, 6924  
*Linum* 8311, 9012, 9013  
*Lotus* 10678  
*Malus* 682, 3506  
*Nicotiana* 594, 1016, 1376, 1629, 2365, 2816, 3423, 3435, 4432, 4436, 4439, 4440, 5339, 5352, 6400, 6405, 6406, 6410, 7448, 7451, 7452, 8330, 8336, 8337, 8342, 9853, 9855  
*Oryza* 355, 4197, 4206, 7191, 8674, 8697  
*Panicum* 320  
*Raphanus* 10987  
review 1629, 10205  
*Ricinus* 9062, 10815  
*Saccharum* 7417  
*Secale* 9409, 10417  
*Secale* × *Triticum* 10301  
*Secale* × *Triticum*, triticales 221, 3980, 5947  
*Solanum*, egg plant 9284  
*Solanum*, potato 2260, 3314, 3316, 4326, 4327, 4339, 4354, 5251, 6298, 6302, 6308, 6313, 6314, 7319, 7324, 7329, 7331, 7836, 8284, 8972, 9385, 9409, 9778, 10685, 10690  
review 5781

**Haploidy contd.**

- Thuja* 7850  
*Triticum* 108, 1069, 1629, 2816, 2895, 2926, 3909, 3937, 4856, 4857, 5805, 8697, 9389  
*Triticum* × *Hordeum* 6924  
*Zea*, maize 252, 253, 4985, 4987, 4988, 5998, 8810, 8814, 9538, 10465
- Haploidy, technique**  
*Lycopersicon* 7708  
*Nicotiana* 2367, 2373
- Haplothrips**  
*Secale* × *Triticum*, triticales 10400  
*Triticum* 6985
- Hard core, Ipomoea** 7365
- Hard seed**  
*Lupinus* 8268  
*Medicago* 2222, 4300  
*Trifolium*, minor species 4300  
*Trifolium*, subterranean clover 4300  
*Trifolium*, subterranean clover 4298  
*Vicia*, broad bean 1566  
*Vicia*, vetch 3289
- Hardiness (see Cold resistance)**
- Harvest index**  
*Cajanus* 11073  
*Cicer* 10182  
crop plants 9379  
*Glycine* 8603  
*Hordeum* 8849  
*Manihot* 9848  
*Oryza* 8169, 9687  
*Pisum* 10165  
*Triticum* 5876, 5881, 8694, 8714, 10330, 10337, 10356  
*Vigna*, minor species 11073  
*Zea*, maize 8051
- Harvesting**  
*Beta*, fodder beet 2349  
*Beta*, sugar beet 2349  
*Brassica*, cabbage 5589  
*Fragaria* 3603  
*Medicago* 3258  
*Prunus*, cherry 5441  
*Rubus*, raspberry 10906  
*Solanum*, potato 2281  
*Sorghum* 339, 340, 7140  
*Zea*, maize 3064, 6031
- Harvesting, mechanical (see also Mechanical injury)**  
*Allium*, leek 2604  
crop plants 9412  
*Cucumis*, cucumber 9412, 10071, 11031  
*Cucumis*, melon 5602  
*Fragaria* 760, 3603, 5475, 5476, 9992, 9993  
*Gossypium* 2300  
*Helianthus*, sunflower 9892  
*Lycopersicon* 2649, 5627, 6652, 7711, 7712, 9412, 10075, 11048  
*Malus* 667, 9412  
*Phaseolus* 6714, 8576  
*Prunus*, cherry 1453, 9123, 9412  
*Rubus*, raspberry 3499  
*Solanum*, potato 4348  
*Triticum* 189  
vegetable crops 5772  
*Zea*, maize 1982, 7066
- Harvesting, mechanical, technique,**  
*Phaseolus* 5650
- Hawthorn (see Crataegus)**
- Haynaldia**  
*Erysiphe* 3877  
*Puccinia* 3877
- Haynaldia** × *Triticum*  
hybridization, intergeneric 10300  
sterility and fertility 10300
- Hazel (see Corylus)**
- Heading broccoli (see Brassica, cauliflower)**
- Heat and drought resistance**  
*Aegilops* 1723, 4886  
*Agropyron* 1723, 6233, 8245  
*Arachis* 7505  
*Avena* 7867, 10252  
*Brassica*, Chinese cabbage 867, 1642, 3669  
*Brassica*, rape 8363  
*Camellia* 5359, 10799  
cereals, review 1721  
*Cicer* 4671  
*Coffea* 3448, 4450  
*Crataegus* 3543  
*Cyamopsis* 10680

**Heat and drought resistance contd.**

- Elymus* 430  
*Euchlaena* × *Zea*, maize 245  
*Fagopyrum* 4232  
*Festuca* 4263, 5189  
*Fragaria* 9147  
*Glycine* 959, 972, 1645, 5794, 8608, 11123, 11165  
*Gossypium* 5301, 9819  
*Gossypium* × *Hibiscus* 7379  
*Helianthus*, sunflower 9071  
*Hordeum* 313, 2055, 2056, 2058, 4096, 4886, 5813, 7867, 7871, 8865, 10252  
*Juglans* 9169  
*Lavandula* 10839  
*Lens* 4671  
*Lolium* 5179, 7245, 8229  
*Lupinus* 2806  
*Lycopersicon* 1521, 1643, 4814, 5630, 7715, 8554, 9276  
*Malus* 6485  
*Manihot* 9368  
*Medicago* 3269, 4279, 7274  
*Nicotiana* 7461, 7462  
*Oryza* 380, 2161, 3164, 3168, 3179, 3831, 5100, 5115, 6158, 8156, 8677, 9698, 10614  
*Oryza* × *Sorghum* 4195  
*Pennisetum* 1183  
*Phaseolus* 4799, 5659  
*Poa* 6205, 8229  
*Populus* 6576, 8463, 10025  
*Prunus*, plum 6503  
*Pseudotsuga* 4597  
*Psophocarpus* 6802  
*Quercus* 10947  
*Secale* 3001  
*Secale* × *Triticum*, triticales 3001, 5813, 7871  
*Solanum*, egg plant 8565  
*Solanum*, potato 1640, 7335, 8294, 9779  
*Sorghum* 341, 1192, 3154, 4159, 4161, 4162, 6130, 7150, 7154, 7156  
review 1721, 5084  
*Trifolium*, subterranean clover 4298  
*Triticum* 165, 191, 193, 1099, 1100, 1101, 1723, 1749, 2850, 3001, 4884, 4885, 4886, 5813, 5825, 5907, 5909, 5910, 5911, 6893, 6900, 6969, 7867, 7953, 8740, 9432, 9441, 9444, 9459, 9462, 10252, 10271, 10311, 10360, 10363, 10365  
*Vigna*, cowpea 3740, 9303, 11109  
*Vigna*, minor species 952, 1576, 1644  
*Vitis* 5502, 7609  
*Zea*, maize 282, 3066, 3068, 5006, 7020, 9520, 9529, 9586, 10424  
review 1721  
*Zizyphus* 10002
- Heat and drought resistance, technique**  
*Arachis* 10237  
conifers 10952  
crop plants 1689, 5793  
*Lycopersicon* 10237  
*Nicotiana* 2382  
*Oryza* 2137, 3193, 5113  
*Prunus*, apricot 9102  
*Prunus*, cherry 9102  
*Prunus*, peach 9102  
*Pyrus* 9102  
*Solanum*, potato 9790, 10237  
*Sorghum* 92, 2097, 7155  
*Triticum* 1843, 5912, 6970, 8758, 9480  
*Zea*, maize 92, 2005
- Heat, effect of (see also Temperature, effect of)**  
*Festuca* 10639, 10640  
*Gossypium* 545, 3356, 9810  
*Lycopersicon* 893, 911, 5630  
*Oryza* 3187  
*Prunus*, peach 712  
*Puccinia* 2971  
*Salvia* 11194  
*Solanum*, potato 9779  
*Triticum* 2971, 8734  
*Vicia*, broad bean 7733  
*Zea*, maize 4037, 4051, 10245
- Height**  
*Acca* 2465  
*Aegilops* × *Triticum* 109, 1775  
*Agropyron* 4271  
*Agropyron* × *Triticum* 123, 1776  
*Agrostis* 7226



## Height contd.

*Arachis* 1414, 6458, 7508  
*Avena* 227, 3002, 3003, 3879, 3993, 4927, 4930, 5965, 10405  
*Brassica*, oil crops 632, 3452, 4462, 9057  
*Brassica*, rape 632, 3668, 10809  
*Cajanus* 4760, 6816, 9338  
*Camellia* 2393, 9870  
*Cannabis* 2318  
*Capsicum* 3485  
*Cicer* 2748, 2749, 10181  
*Citrus* 6517  
*Citrus*, lemon 2502  
*Citrus*, mandarin 2502, 9953  
*Citrus*, orange 2502  
*Cocos* 35, 738, 2515  
*Coffea* 6426, 10801  
*Corchorus* 10735  
*Cymbopogon* 2445  
*Elaeis* 7500  
*Eleusine* 2074  
*Elymus* × *Triticum* 115  
*Fagopyrum* 409  
*Festuca* 7226, 9736  
*Ficus* 2465  
*Glycine* 964, 968, 971, 1584, 2727, 5683, 6750, 6756, 6767, 7767, 7768, 10142, 10146  
*Gossypium* 530, 551, 4368, 5295, 5300, 5310, 6342, 7368, 7380, 7386, 7387, 9003, 9805  
*Helianthus*, sunflower 7491, 9065, 9884  
*Hibiscus* 1357, 2322, 2326, 5316, 6367  
*Hordeum* 1149, 1152, 2022, 2023, 2038, 2039, 2042, 2046, 2852, 3109, 3879, 4077, 4095, 4096, 6080, 6083, 6085, 6102, 7100, 7103, 8067, 8075, 8087, 8849, 8850, 8856, 9410, 9606, 10542  
*Juglans* 786, 10018  
*Lens* 11189  
*Linum* 2316, 8311, 9410, 9826, 9827  
*Lolium* 2196, 7226, 7245, 8236  
*Lycopersicon* 923, 2639, 8552  
*Macroptilium* 3724  
*Malus* 1437, 2474, 6480, 6485, 10860  
*Medicago* 447, 3268, 9749, 10659  
*Mentha* 2766  
*Musa* 3605  
*Nicotiana* 1374, 1379, 3424, 4436, 4439, 5347, 7431, 7450, 7461, 8340, 9035, 10785  
*Olea* 9101  
*Oryza* 358, 362, 373, 1211, 1215, 1219, 1222, 1225, 2104, 2131, 2138, 2139, 2143, 2144, 2151, 2163, 2846, 3158, 3159, 3163, 3170, 3172, 3176, 3179, 4190, 4200, 4203, 4204, 5110, 5116, 5121, 5124, 5128, 5142, 6139, 6148, 6150, 6174, 7208, 7220, 8154, 8162, 8163, 8166, 8168, 8169, 8179, 8886, 8902, 9652, 9667, 9668, 9681, 9687, 9690, 10602  
 review 6877  
*Panicum* 2062, 8873  
*Pennisetum* 1181, 5065, 6201, 9633, 10559  
*Phaseolus* 1571, 2699, 3734, 9292, 9293  
*Phleum* 5172  
*Pistacia* 2465  
*Pisum* 1602, 2742, 3779, 6789, 7781, 7784, 8617, 9326  
*Poa* 7226, 9720  
*Prunus*, almond 2465  
*Prunus*, cherry 1425, 2494, 2495, 2496  
*Prunus*, peach 3508, 9125  
*Psophocarpus* 8633  
*Punica* 2465  
*Pyrus* 6491  
*Ricinus* 6440, 9061  
*Secale* 1913, 4004, 4936, 4941, 5975, 7018, 8003, 8004, 8005, 8006, 8008, 8786, 8789, 9514  
*Secale* × *Triticum* 8778  
*Secale* × *Triticum*, triticales 212, 221, 1877, 1881, 1892, 2998, 2999, 3980, 4922, 4923, 5939, 5942, 5949, 7977  
*Sesamum* 6441  
*Solanum*, egg plant 2658, 9285  
*Solanum*, potato 8279  
*Sorghastrum* 4243

## Height contd.

*Sorghum* 334, 336, 2088, 2089, 3143, 3150, 6121, 6123, 6129, 7127, 7136, 7147, 8132, 8134, 8137, 8140, 8143, 9642, 9645, 10574, 10575  
*Trifolium*, red clover 1278, 5229  
*Triticum* 95, 101, 109, 111, 112, 119, 127, 128, 145, 147, 152, 159, 160, 161, 162, 163, 166, 170, 172, 177, 178, 180, 194, 1061, 1080, 1082, 1085, 1104, 1756, 1757, 1758, 1760, 1761, 1776, 1777, 1788, 1792, 1793, 1806, 1850, 2850, 2925, 2927, 2928, 2929, 2930, 2953, 2957, 2959, 3889, 3891, 3892, 3894, 3898, 3922, 3923, 3936, 4835, 4859, 4864, 4866, 4868, 4869, 4871, 4884, 5823, 5868, 5870, 5873, 5875, 5879, 5883, 5885, 5887, 5891, 6887, 6892, 6894, 6896, 6927, 6929, 6931, 6932, 6933, 6936, 6947, 6954, 7876, 7887, 7888, 7889, 7891, 7899, 7927, 7934, 7936, 7938, 8712, 8726, 8727, 8730, 8741, 8742, 8747, 8759, 9438, 9451, 9459, 9463, 9466, 9467, 9469, 9471, 10274, 10276, 10277, 10278, 10291, 10305, 10311, 10312, 10313, 10317, 10318, 10320, 10330, 10332, 10334, 10354, 10355, 10362  
 review 6877  
*Valeriana* 7526  
*Vicia*, broad bean 2681, 4681, 6694  
*Vicia*, vetch 465, 2242  
*Vigna*, cowpea 950, 3724, 6737  
*Vigna*, minor species 1644, 3744, 10122  
*Zea*, maize 1960, 1965, 1982, 1986, 4009, 4035, 4049, 4968, 5018, 5995, 6000, 6003, 6012, 7037, 8029, 8038, 8802, 9537, 9566, 10470  
*Zea*, popcorn 1141  
*Zea*, sweet corn 4075  
*Zizania* 4233  
**Height, technique, *Triticum*** 3924  
***Helianthus*, Jerusalem artichoke**  
 breeding, USSR 7659  
 chromosomes, morphology 2599  
 hybridization, interspecific 9070  
 taxonomy 9070  
***Helianthus*, sunflower**  
*Alternaria* 2422, 7495  
*Amrasca* 3474  
 anther, anatomy 2414  
*Apis* 640, 641  
 breeding  
 Canada 6442  
 India 3468  
 USSR 43  
 cell division 4474  
 chemicals, as nutrients, nitrogen 5385  
 chemicals, as plant constituents  
 fatty acids 642, 9890  
 IAA oxidase 6448  
 linoleic acid 642, 9890, 9891  
 lipids 9890  
 nucleic acids 4474  
 oil, fatty 1409, 1410, 3470, 4473, 5378, 5379, 5385, 6444, 6447, 7490, 8369, 9065, 9066, 9886, 10822  
 oleic acid 642, 9890  
 peroxidase 6451  
 phenols 6448  
 proline 9071  
 chemicals, fertility and sex, effects  
 GA 2414, 2416, 6446, 6448  
 IAA 6448  
 chemicals, general effects, oxalic acid 6453  
 chemicals, mutagenic effects  
 1,4-bis(diazo)acetylbutane 9883  
 dimethyl sulphate 9883  
 ethylene oxide 9883  
 ethyleneimine 9883  
 miscellaneous 9890  
 chromosomes, morphology 2413  
 combining ability 3470, 5378, 6444, 7489, 9069  
 yield components 9887, 10821  
 combining ability, technique 10818  
 competition 10818  
 density of stand 8369  
 development, abnormal 5377  
 diallel analysis 1409, 10819  
 dormancy 638

*Helianthus*, sunflower contd.

environment 9891  
 epistasis 10819  
 experimental designs 10818  
 flowering 5381, 6453  
 fruit, size 1410  
 γ rays 2418, 6445  
 gene interaction 643  
 genetic variance 6444  
 yield components 9068, 9887, 10821  
 genetics  
 growth period 2411  
 habit 639  
*Homoeosoma* 643  
 inflorescence, shape 5377  
 leaf 639  
*Orobanche* 643  
*Plasmopara* 643, 4475, 6451  
*Plasmopara*, technique 7494  
*Puccinia* 643  
 sterility, male, cytoplasmic 5383  
*Verticillium* 643  
 genotype × environmental interaction 3469  
 growth period 2411, 2418, 6445, 6449, 9065, 9891  
 gynecium 2415  
 habit 639, 1410, 9883  
 harvesting, mechanical 9892  
 heat and drought resistance 9071  
 height 7491, 9065, 9884  
 heritability 4473, 5380, 5381  
 oil, fatty 9886  
 yield components 9068, 9886, 10820  
 heterosis 636, 2412, 3470, 5379, 9069  
 history and evolution 7850  
*Homoeosoma* 643, 1411, 2422, 4476  
 hybrid varieties 2410, 3468, 4471, 6443, 9067  
 hybridization, interspecific 644, 1411, 2422, 2423, 5383, 6442  
 ideotype 9889  
 inbreeding 636  
 inflorescence 9884  
 inflorescence, shape 5377  
 inflorescence, size 7491  
 leaf 639  
 leaf, size, technique 5382  
*Macrophomina* 2422, 10822  
 meiosis 2413  
 mixtures of crops or genotypes 7850  
 mutation, induced 2418, 6445  
 habit 9883  
*Orobanche* 1411, 2422, 5386  
 physiological races 643, 645  
*Orobanche*, technique 3473  
 outcrossing 637  
*Phoma* 2422  
*Plasmopara* 643, 644, 1411, 2422, 2423, 5386, 6448, 6450, 6451, 7493, 9893  
 physiological races 4475  
 pollen 2414, 2415, 2416, 2417, 5381  
 pollination 640, 641, 2420, 3471, 5380, 6447, 8368  
 polyploidy 2413, 7850  
*Pseudomonas* 9072  
*Puccinia* 643, 644, 2422, 4471, 7496  
 radiation 4474, 9890  
*Rhizopus*, technique 10824  
*Sclerotinia* 7493  
*Sclerotinia*, technique 2424, 6453  
*Sclerotium* 10822  
 seed production 7490  
 seed, technique 5384  
 seed, weight 5378, 6447  
 seedlings 6450  
 seedlings, size 4474  
 selection, artificial 9066  
 sowing and planting date 2421  
 stability 4472, 5379, 7490  
 sterility and fertility 1410, 2413, 2415, 2420, 3471, 5380, 6447, 9888  
 sterility, male 641, 2414, 2417, 2419, 6448, 9889  
 review 10227  
 sterility, male, cytoplasmic 1410, 2414, 2417, 3468, 3472, 4471, 5383, 6442, 6448  
 sterility, male, technique 6446  
 sterility, self 2415, 3471, 5380, 8368, 9888  
 succession, crop 6449  
 taxonomy 9070



**Helianthus, sunflower contd.**

- tissue culture 7492
- variation 9892
- varieties
  - canada 4471
  - India 9067
  - Italy 6449
- variety trials
  - Australia 2410
  - Canada 7488
  - Hungary 8367
  - Romania 9882
  - South Africa 6443
  - USA 3853
  - Venezuela 4470
  - Yugoslavia 3469
- Verticillium* 643, 1411, 2422, 7496, 10808
  - physiological races 6452
  - USA 10823
- Xanthomonas* 9072
  - yield components 636, 1409, 2412, 2421, 3470, 7489, 7491, 9068, 9885, 9886, 9887, 10819, 10820, 10821
- Zygomorpha* 10825
- Helicotylenchus, Lycopersicon** 3720
- Heliothis**
  - Atylosia* × *Cajanus* 2797
  - Cicer* 2796, 3794, 6794
  - Glycine* 1597, 1645
  - Gossypium* 555, 4394, 5308, 5309, 9009, 10727
  - Lycopersicon* 2653
  - Nicotiana* 6419
  - Sorghum* 4160
  - Zea, maize* 2012, 4947, 6067, 7072, 8063, 10504
  - Zea, sweet corn* 3085, 5019
- HELLULA, Brassica, Chinese cabbage** 1642
- Helminthosporium** (see also *Cochliobolus*; *Pyrenophora*; see also *Setosphaeria*)
  - Agrostis* 2185
  - cereals
    - physiological races 8705
    - review 8705
  - Cynodon* 3218
  - Festuca* 2185
  - genetics, cereals 8705
  - Poa* 416, 2185
  - Solanum, potato* 6328
  - Sorghum* 8146
  - Triticum* 4890
- Helminthosporium, technique**
  - Oryza* 10615
  - Sorghum* 7171
- Helopeltis, Anacardium** 37
- Hemarthria**
  - digestibility 2207, 8249
  - persistence 2207
- Hemileia**
  - Coffea* 1387, 4797, 5361, 6422, 6423, 6426, 6427, 10800, 10804, 10805
  - physiological races 9876, 10803
  - Angola 6424
  - India 3449
  - genetics, *Coffea* 10803
- Hemizygosis, Malus** 2480
- Hemp** (see *Cannabis*)
- Heracleum**
  - breeding, Poland 2249
  - chemicals, as plant constituents
    - bergapten 9767
    - xanthotoxin 9767
  - chemicals, mutagenic effects
    - diethyl sulphate 9767
    - dimethyl sulphate 9767
    - ethyl methanesulphonate 9767
    - ethyleneimine 9767
    - N*-nitroso-*N*-ethylurea 9767
    - N*-nitroso-*N*-methylurea 9767
  - mutation, induced
    - bergapten 9767
    - xanthotoxin 9767
- Heredity** (see Genetics)
- Heritability** 1617, 1618, 5729, 5737, 6826, 7806
  - Agropyron*, yield components 8245
  - Agropyron* × *Triticum* 123
  - Allium, onion* 2603
  - Ananas* 2533
  - Andropogon*
    - seed production 10646
    - yield components 10646

**Heritability contd.**

- Arachis* 3805, 4485, 5396
- Avena* 1899, 3005, 3006
  - development and growth 10402
- Betula* 6580
- Brassica, cabbage* 5581
- Brassica, cauliflower* 1542, 5592
- Brassica, oil crops* 2403
- Brassica, rape* 8363
- Brassica, red cabbage* 5581
- Cajanus* 6813
- Camellia*
  - height 9870
  - internode, length 9870
  - leaf, size 9870
- Capsicum* 3485, 6467
  - yield components 9907
- Carthamus* 2426, 4477, 5390
- Cicer* 6790, 6791
- Cichorium, chicory, quality* 10976
- Cochliobolus* 6058
- Coffea* 6425
- Corchorus* 3381
  - quality, of fibre 9017, 10737
- crop plants 3848
- Cucumis, cucumber* 3698, 4635
  - flowering 8532
  - fruit, number 11022
  - growth period 7687, 8532
  - parthenocarp 8532
  - sex 8532
  - yield components 7687
- Cucumis, melon* 875
- Cyamopsis* 1292
- Dactylis* 1242
- Daucus* 5548
  - leaf, number 10985
  - leaf size 10985
  - leaf, weight 10985
  - root, size 10985
  - root, weight 10985
- Desmodium* 5241
- Elaeis, yield components* 7498
- Eucalyptus*
  - anatomy 8469
  - quality, of timber 8469
  - specific gravity 8469
- Fagus, quality, of timber* 8465
- Festuca* 1242, 6225, 7229, 7233, 7234, 7259
  - chlorophyll 10640
  - digestibility 8947
  - hemicellulose 8947
  - protein 8947
- Festuca* × *Lolium* 5180
- forest trees 1497
- Fragaria* 1477
- Glycine* 962, 3752, 4730, 5682
  - growth period 10142
  - height 10142
  - lodging 10142
  - oil, fatty 10128
  - photosynthesis 11137
- Gossypium* 2302, 2311, 3365, 4379, 5283, 5293, 5301, 6263, 6346, 6353, 7387
- Helianthus, sunflower** 4473, 5380, 5381
  - oil, fatty 9886
  - yield components 9068, 9886, 10820
- Hevea* 3491
- Hibiscus* 2321, 4401, 4402, 6368
  - yield components 10741
- Hordeum* 304, 2039, 3108, 4077, 4078, 4085, 4104, 6092
  - $\alpha$ -amylase 8121
  - $\beta$ -amylase 8121
  - $\beta$ -glucanase 8121
  - height 8067
  - photoperiodism 10530
- Humulus* 5367
- Lablab* 2759
  - yield components 9336, 11193
- Lactuca* 6626, 7677
- Larix* 7651
- Lens, yield components* 9335
- Linum* 3378
  - growth period 9010
  - oil, fatty 7398
- Lolium* 1242, 4259
- Lotus* 4308
- Lycopersicon* 5623, 8543
  - fruit, texture 8542
- Macrotyloma* 6818

**Heritability contd.**

- Malus* 3526
- Manihot* 6395
- Medicago* 445, 1268, 5209, 6251, 6253, 7281
- Momordica**
  - ascorbic acid 10074
  - iron 10074
  - phosphorus 10074
  - potassium 10074
  - protein 10074
- Musa* 3605
- Nicotiana* 584, 5347, 9037
- Oryza* 368, 376, 377, 1213, 2123, 2133, 2134, 2153, 3181, 4192, 5127, 5128, 5763, 6172, 6173
  - growth period 9688
  - leaf 9688
  - yield components 7184, 9688
- Panicum* 3132
  - digestibility 9625
- Papaver**
  - leaf, number 10806
  - leaf, size 10806
- Phalaris* 3227, 3228, 5197, 7234
- Phaseolus* 5656, 5660, 7741
  - fruit 11095
  - globulin 11101
  - Hylemya* 8590
  - phenols 8584
  - protein 11101
- Phleum* 4256, 7233
- Picea* 814, 7645
- Pinus* 5533, 7634, 7635, 7642, 8482, 9191, 10038
  - increment 9189
  - quality, of timber 8477
- Pisum* 1598, 2741, 3778, 7780, 7786
- Poa* 2186
- Prunus, peach*
  - growth period 8412
  - leaf colour 8412
- Prunus, plum* 10879
- Pseudotsuga* 7634, 7654
- Psophocarpus* 8631
  - foliage area 11190
  - leaf, size 11190
- Pyrus**
  - fruit, texture 8395
  - quality, for fresh consumption 8395
- Raphanus**
  - growth period 10988
  - yield components 10988
- Rubus* 1471
- Saccharum* 6371
- Secale* 1914, 7018, 7994
- Secale* × *Triticum, tritcale* 1893, 2999, 7000
  - trypsin inhibitor 10397
- Sesamum* 5375
- Solanum, egg plant* 927
  - fruit, length 11071
  - yield components 11070
- Solanum, potato* 7331, 8283
  - development and growth 8279
  - growth period 8279
  - height 8279
  - specific gravity 8279
  - tuber 8279
  - tuber, number 9781
  - yield components 9781, 10685
- Sorghastrum* 8248
  - digestibility 9743
  - growth period 9743
  - protein 9743
- Sorghum* 338, 4118, 4140, 6126
  - growth period 8134
  - height 8134
  - protein 10570
- Trachyspermum* 2769
  - yield components 11197
- Trifolium, red clover* 3284, 5226, 5228, 5230
- Trifolium, white clover* 5231
- Tripsacum* 2015
- Triticum* 141, 142, 1060, 1061, 1062, 1081, 1755, 1808, 1840, 2917, 2925, 3940, 3942, 4847, 4862, 4868, 5897, 5906, 5920, 6887, 6921
- ABA 7890
- aluminium 7887
- cold resistance 7892, 9481
- dormancy 7889



**Heritability contd.**

- Triticum* contd.  
 germination 8726  
 height 7887, 8726  
 seed, weight 9465  
*Septoria* 10366  
 xylem 10331  
 yield components 9460, 10354  
*Vaccinium* 753  
*Vicia*, broad bean 937, 938, 2670, 2679, 3727  
 yield components 10095  
*Vicia*, vetch 3290  
*Vigna*, cowpea 3739, 4697, 6736  
 growth period 10116  
 yield components 10115, 10116  
*Vigna*, minor species 2709  
 yield components 11114  
*Vitis*, seasonal growth 8442  
*Zea*, maize 255, 1122, 1928, 1944, 3052, 4020, 4046, 4050, 5005, 5995, 6002, 6003, 6022, 6023  
 carotenoids 7046  
 chlorophyll 7046  
 flowering 8801  
 germination 8817  
 growth period 8024, 10506  
*Kabatiella* 10500  
*Ostrinia* 10506  
 phosphoenolpyruvate carboxylase 7046  
 photosynthesis 7046  
 ribulose 1,5-diphosphate carboxylase 7046  
*Sclerospora* 10499  
*Zingiber* 659
- Heritability, technique** 3805  
 fruit crops 2463  
*Picea* 2582  
*Sorghastrum* 4243
- Hermaphroditism** 5750  
*Asparagus* 3838, 5564  
*Citrullus* 8530  
*Elaeis* 2431  
 grasses 10626  
*Juglans* 10018  
*Quercus* 4579  
*Salvia* 9341  
*Vitis* 7613  
*Zea*, maize 1959, 8041
- Heterocaryosis**  
*Agaricus* 1518  
*Cochliobolus* 10495  
*Gaeumannomyces* 3961
- Heterochromatin** (see Chemicals, as plant constituents; Nucleus)  
*Secale* 8787
- Heterodera**  
*Avena* 2864, 3007, 6885, 8708  
 physiological races, Denmark 10240  
*Beta*, sugar beet 2350, 2351, 5328, 5329, 7421, 9028  
 cereals 94  
*Glycine* 7777, 7779, 8598, 11159  
 physiological races  
 Japan 10152  
 USA 3771  
*Hordeum* 94, 318, 2864, 6885  
 physiological races 8073  
 Denmark 10241  
 India 7118  
*Triticum* 208, 6885  
 physiological races  
 Australia 8771  
 Europe 8771  
 USSR 10392
- Heterodera, technique**  
 Cruciferae 5578  
*Nicotiana* 2378  
*Raphanus* 5578  
*Sinapis* 5578
- Heterosis** 10, 3819, 4783, 9377  
*Agropyron* 2201  
*Allium*, leek 849  
*Allium*, onion 5558, 6607  
*Allium*, onion  $\times$  *Allium*, shallot 5557  
*Arachis* 6456  
*Avena* 226  
*Beta* 5325  
*Beta*, beetroot  
 betacyanins 8501  
 betaxanthin 8501  
*Beta*, fodder beet 7312  
*Beta*, sugar beet 5326

**Heterosis contd.**

- Brassica* 2605  
*Brassica*, oil crops 4453, 4454  
*Brassica*, rape 2605, 3668, 5370  
*Brassica*, turnip 7833  
*Cajanus* 3797  
*Capsicum* 5401  
 yield components 9088  
*Cicer* 984, 4757  
*Cichorium*, chicory, quality 10976  
*Citrullus* 6637  
*Citrus*, grapefruit  $\times$  *Poncirus* 717  
*Citrus*, mandarin  $\times$  *Poncirus* 717  
*Citrus*, pomelo  $\times$  *Poncirus* 717  
*Cocos* 738  
 crop plants 1012, 6863, 10226  
*Cucumis*, cucumber 3699  
 fruit, weight 7686  
 parthenocarp 8532  
 sex 8532  
 stem, number 7686  
*Cucumis*, melon 6635  
*Cyamopsis* 1292  
*Daucus* 9224, 10984  
*Digitalis*, lanatoside C 9915, 9916  
*Eucalyptus* 6581  
*Fagopyrum* 8927  
*Festuca* 4265, 10640  
*Festuca*  $\times$  *Lolium* 4262, 7260  
*Fragaria* 10924  
*Glycine* 964, 4727  
*Gossypium* 530, 532, 534, 1340, 2289, 2290, 4379, 5286, 7376, 7380, 8992, 8993, 9806  
 fruit, weight 9816  
 height 9003  
 quality, of fibre 9005  
 yield components 10709, 10712, 10716  
*Helianthus*, sunflower 636, 2412, 3470, 5379, 9069  
*Hibiscus* 2324  
 yield components 10740  
*Hordeum* 304, 2019, 2020, 2028, 2039, 3099, 3100, 4078, 5027, 7090, 7103, 7863  
 growth period 8849  
*Juglans* 7618  
*Lablab*, leaf, size 7797  
*Lactuca* 1516  
*Laminaria* 4771  
*Lolium* 425  
*Lotus* 4310  
*Lupinus* 4306, 7303  
*Lycopersicon* 4640, 6648, 6653, 7704, 7709, 8546, 8548, 9270  
 fruit, texture 8542  
 yield components 8544  
*Lycopersicon*  $\times$  *Solanum*, carotene 8545  
*Medicago* 447, 2215, 3251, 4279  
*Mentha* 7802  
*Nicotiana* 584, 3423, 3424, 3435, 5351, 7462, 8334, 8335, 10780, 10781  
 growth period 10785  
 height 8340, 10785  
*Peronospora* 10771, 10772  
 quality, for smoking 10771, 10772  
 yield components 10785  
*Onobrychis* 1288  
*Oryza* 1218, 2122, 2134, 2146, 5123, 5127, 9674  
 yield components 7184, 8175  
*Pennisetum* 6114  
 nitrate reductase 8874  
*Phaseolus* 8576  
*Xanthomonas* 11094  
 yield components 8574  
*Pinus* 2578  
*Pisum* 5702, 6785, 6787, 10165  
*Psophocarpus* 8626, 8631, 8640  
*Rosa* 5397  
*Salix* 5527  
*Secale* 1048, 8785  
*Secale*  $\times$  *Triticum*, triticale 1048, 5940, 5950  
*Sesamum* 2408, 4469, 5375  
*Solanum* 11067  
*Solanum*, egg plant 6669, 8565  
*Solanum*, potato 487, 7319  
 yield components 10685  
*Sorghum* 335, 2082, 4132, 4134, 4143, 4144, 4145, 5074, 7126, 7143  
 forage 10577  
 iron 9649

**Heterosis contd.**

- Sorghum* contd.  
 nitrate reductase 7133  
 protein 10570  
 tannin 10581  
 yield components 9645, 10577  
*Trachyspermum* 9340  
*Triticum* 124, 161, 174, 1048, 1066, 1084, 1809, 2882, 2890, 2898, 3901, 3902, 3910, 3914, 3939, 4848, 5883, 6888, 6918, 6921, 6932, 6939, 6943, 6954, 7863, 7875  
 cold resistance 9481  
 harvest index 10330  
 height 8742, 10330  
 tillering 10330  
 yield components 9463, 10317  
*Vaccinium* 9985  
*Valeriana* 7526  
*Vicia*, broad bean 937, 2677  
*Vigna*, cowpea 6737, 10113  
 yield components 9302  
*Vigna*, minor species 2705  
 shedding 10125  
*Vitis* 773, 2553  
*Zea*, maize 246, 249, 255, 261, 1123, 1928, 1952, 1988, 3036, 4010, 4020, 4021, 4022, 4049, 4990, 4991, 5980, 6006, 7040, 7042, 7057, 7863, 8806, 9520, 9544, 10451, 10477  
 flowering 8801  
 height 8802  
 lodging 10426  
 yield 10426  
*Zea*, popcorn 5021
- Heterosis, technique**  
 grasses 4238  
*Lycopersicon* 3707
- Heterostyly**  
*Averrhoa* 10207  
*Fagopyrum* 1241, 3203, 5149, 8925, 8926, 8930, 10207, 10621, 10622  
*Linum* 10207  
*Lycopersicon* 6653  
 review 10207  
*Solanum* 1422, 7728  
*Solanum*, egg plant 7728
- Heterothallism**, *Bremia* 10063
- Heterozygosis** 1003, 2788, 5723, 5724  
 crop plants 7854, 9397  
*Eucalyptus* 800  
*Festuca* 10638  
*Hordeum* 8844  
*Lycopersicon* 3708  
*Medicago* 3251  
*Nicotiana* 8330  
*Pinus* 2577, 9190, 10032, 10954  
*Pseudotsuga* 9207  
*Raphanus* 1524  
*Secale* 8001  
*Solanum*, potato 7318  
*Triticum* 1059, 1083, 10303  
*Vitis* 6548  
*Zea*, maize 249, 9537
- Heterozygosis, technique**, *Zea*, maize 1950
- Hevea**  
 anther culture 9099  
 breeding 2458  
 chemicals, as plant constituents  
 calcium 10848  
 IAA oxidase 3493  
 latex 10848  
 magnesium 10848  
 peroxidase 3493  
 phenols 3493  
 phosphorus 10848  
 density of stand 7529  
 development and growth 6470  
 flowering, technique 2459  
 fungi, review 4500  
 genetic resources 2458  
 germination 2459  
 grafting 2459  
 growth period 8382  
 haploidy 9099  
 heritability 3491  
 hybridization, interspecific 3494  
 leaf 2460  
*Microcyclus* 3493, 4500  
 photosynthesis 2460, 4499  
*Phytophthora* 3494, 4500  
 quality, for industrial processing 10848  
 selection, artificial 8382



**Hevea** *contd.*

- stomata, number 3494
- stomata, size 3492, 3494
- Thanatephorus* 4500
- variety trials
  - Brazil 6470
  - Malaya 665, 5408
- water balance 3492
- yield components 5408, 7529

**Hibiscus**

- Botrytis* 10738
- calyx, size 9020
- Cercospora* 8319
- chemicals, as plant constituents
  - anthocyanins 7405
  - chlorophyll 7403, 8318
  - citric acid 7404
  - delphinidin glycosides 7405
  - hibiscic acid 7404
  - malic acid 7404
  - mucilage 7406
  - nitrogen 1357
  - protein 10739
  - tartaric acid 7404
- chemicals, fertility and sex, effects,
  - ethephon 10743
- Colletotrichum* 1329
- colour 9019
- combining ability 2321, 2326, 4402
  - yield components 10740
- corolla, colour 9019
- diallel analysis 2326
- Earias* 2328, 9835
- embryo, size 7403
- Erysiphe* 9833
- flowering 9020
- fruit, colour 9019
- fruit, number 2324, 5316
- gene interaction 2326
- genetic resources 2594
- genetic variance 5316
  - yield components 10741
- genetics
  - chlorophyll 7403, 8318
  - corolla, colour 9019
  - fruit, colour 9019
  - leaf, colour 9019
  - stem, colour 9019
- genotype  $\times$  environmental interaction 6367
- growth period 1357, 2322, 2326, 5316, 6367
- height 1357, 2322, 2326, 5316, 6367
- heritability 2321, 4401, 4402, 6368
  - yield components 10741
- heterosis 2324
  - yield components 10740
- hybridization, interspecific 2322, 2323, 2325, 2329
- leaf 2322
- leaf, colour 9019
- linkage 9832
  - colour 9019
- Macrophomina* 8319
- magnetism, effect of 1356
- meiosis 2325
- Meloidogyne* 9834, 10739
- multiple genes
  - leaf, colour 9019
  - stem, colour 9019
- mutation, induced 7403
  - chlorophyll 8318
- Phytophthora* 1330
- pleiotropy 9832
- polyploidy 7403
- quality, of fibre 9832
- ripening 7404, 7405, 7406
- seed, size 7403
- sex 10743
- sowing and planting date 1357
- stem 2326
- stem, colour 9019
- sterility and fertility 2325
- sterility, self 2323
- varieties, India 560, 2320
- variety trials, Tunisia 2319
- viruses 2323, 2329, 4401
- X rays 7403
- yield components 561, 2324, 2327, 2329, 4401, 4402, 6369, 9832, 10740, 10741

**Hibiscus**  $\times$  *Gossypium*, hybridization, intergeneric 2292, 7379

**Hicoria** (see *Carya*)

**Hierochloe**

- chemicals, as plant constituents, oil,
  - essential 6463
- polyploidy 6463

**Hippophae**

- breeding, USSR 3606
- chemicals, as plant constituents
  - ascorbic acid 8436
  - carotene 10927
  - carotenoids 10001, 10927
  - oil, fatty 6539
  - sterols 10001
- development and growth 4560, 4561
- fruit, weight 6539
- $\gamma$  rays 2535
- genetic resources 9997
- growth period 4560
- leaf, size 4560
- rooting capacity 4561
- spines 4561, 6539
- yield components 9150

**Histology** (see *Anatomy*)

**History and evolution** 1619, 5513, 5746, 6833, 6839, 6841, 10209 (see also Centres of origin or diversity; Evolution, general theory)

- Aegilops* 6964, 7972, 7974, 7975, 8729, 9495, 9496, 10209
- Agropyron* 10209
- Anthyllis* 5240
- Atriplex* 7729, 7730
- Atylosia* 6819
- Avena* 1898, 4824, 4932, 9503, 10403
- Beta*, sugar beet 7850
- Brassica* 3661, 3666
  - review 6614
- Brassica*, oil crops 3663
- Bromus* 9729
- Cajanus* 4763, 6819
- Capsicum* 1420
- cereals 1021, 1719
- Chrysanthemum* 7850
- Citrullus* 10067
- Cocos* 6525
- Coffea* 4449, 8353
- crop plants 1682, 7850
- Cucumis* 2635
- Cucumis*, cucumber 10067
- Cucurbita* 10067
- cucurbits 10067
- Cynodon* 10629
- Eleusine* 328, 3139
- Elymus* 8247, 10209
- Euchlaena* 7065, 9580
- Fagopyrum* 6196, 8933
- Festuca* 6227
  - review 7256
- forest trees 8458
- Fragaria* 6537
- Genisteae 8250
- Glycine* 932, 4724, 5640, 5686
- Gossypium* 2307, 4369, 4382, 6347
- Helianthus*, sunflower 7850
- Hordeum* 1154, 1155, 4824, 4825, 7850, 8122, 8123
- Ipomoea* 7850, 8301
- Lagenaria* 3705
- Lathyrus* 1293
- Lolium* 7850, 8239, 8241
- Luffa* 3705
- Lupinus* 8959
- Lycopersicon* 14, 912
- Macroptilium* 5640
- Macrotyloma* 5640
- Malus* 10863
- Medicago* 996, 2210, 7850, 8257, 9750, 10209
- Momordica* 9256
- Nicotiana* 600, 1381, 2369
- Oryza* 343, 1228, 2844, 6139, 7205, 7850
- Phaseoleae 8250
- Phaseolus* 932, 5640, 5641, 6702, 6716, 6717, 7738
- Poncirus* 726
- Populus* 7850
- Prunus*, cherry 3556
- Psophocarpus* 1609, 6821
- pulses 1021
  - review 10089
- Quercus* 4579, 5516
- Secale* 4824, 7850, 9513, 9517
- Secale*  $\times$  *Triticum*, tritcale 7851

**History and evolution** *contd.*

- Solanum* 8288, 10847
  - Solanum*, potato 493, 1314, 2251, 2253, 2268, 2269, 4323, 7321, 7333, 7850, 8280
  - Theobroma* 1388
  - Thuja* 7850
  - Trichosanthes* 2633
  - Trifolieae 8250
  - Trifolium* 10669
  - Trigonella* 8257
  - Tripsacum* 9580
  - Triticum* 14, 187, 1728, 1773, 1780, 1820, 4824, 4825, 4836, 5850, 6964, 6965, 6966, 7850, 7903, 7947, 7948, 8729, 8755, 8756, 9390, 9479, 9495, 10261, 10262
  - Vicia*, broad bean 3730
  - Vicieae 8250, 8952
  - Vigna*, cowpea 5640, 5641, 8591
  - Vigna*, minor species 4708, 5640, 6716, 7758
  - Vitis* 780, 9160
  - Vulpia* 3235
  - Zea*, maize 4999, 7065, 7850, 8052, 8823, 9580, 9581
    - review 276
- History and evolution, technique**
- cereals 10242
  - Euchlaena* 10242
  - Triticum* 7852, 10340
  - Zea*, maize 10242
- Holcus**
- chemicals, general effects, sulphur dioxide 8935
  - embryo sac 6239
  - embryology 6239
  - pollution, atmospheric 8935
  - polyploidy 6239
- Homoeosoma**, *Helianthus*, sunflower 643, 1411, 2422, 4476
- Homozygosis** 7810
- crop plants 9397, 9401
  - Hordeum* 6070
  - Medicago* 449
  - Nicotiana* 5339, 8330
  - Oryza* 355, 3185, 8177
  - Pinus* 2578
  - Secale* 8006
  - Solanum*, potato 4327, 8284
  - Triticum* 2926
  - Zea*, maize 4044
- Homozygosis, technique**, *Nicotiana* 1376
- Hop** (see *Humulus*)
- Hoplocampa**, *Malus* 1446, 5795
- Hordeum** 10258
- aging of seeds 8102
  - altitude 8671, 9410
  - aneuploidy 1045, 2022, 2023, 2026, 2049, 4092, 5032, 7088, 7097, 7098, 8085, 8100, 8101, 8107, 8110, 8835, 9604, 9605
  - anther, anatomy 8851
  - anther culture 1016, 1150, 1151, 3105, 6087, 8105, 8696
  - apomixis 6850
  - asynapsis 8106
  - awns 1166, 1699, 5031, 6068, 6100, 9601, 10516
  - awns, colour 10544
  - awns, length 9612
  - awns, size 8092
  - awns, texture 7109
  - $\beta$  rays 1626, 8838
  - back crossing 8836
  - bacteria 2852
  - Brachycolus* 10257
  - breeding 10514
    - Czechoslovakia 10520
    - Denmark 10241
    - Finland 7823
    - German Democratic Republic 3086, 5772
    - German Federal Republic 4808
    - Kazakh SSR 2050
    - Lithuanian SSR 7081
    - review 1160
    - S. Korea 4802
    - Sweden 3090
    - Ukrainian SSR 2016, 7080, 10515
    - USA 3089, 5022
    - USSR 43, 291, 3087, 4080, 7090, 9599, 10517, 10518



**Hordeum contd.**breeding *contd.*USSR *contd.*

review 7108

breeding, technique 2853, 7860

cell division 301, 1045, 4091, 6087, 8102, 8843, 9604, 10538, 10540, 10549

centres of origin or diversity 1155, 1699

chemicals, as nutrients

ammonium 7104

nitrate 311, 7104

nitrogen 89, 1038, 1167, 5035, 5042, 8863, 8864, 9615

potassium 311

potassium, technique 10545

chemicals, as plant constituents

ABA 1709

acids 311

ADP (UDP) sucrose synthetase 10543

ADPglucose (UDPglucose) starch

synthetase 8118

alanine 1163

albumin 307, 317, 1036, 1163, 5043,

5046, 5047, 6096

alcohol dehydrogenase 5036, 5851,

8858

aminoacids 1029, 1030, 4099, 5046,

8862, 9614

 $\delta$ -aminolevulinate 3110 $\alpha$ -amylase 8121, 9612 $\beta$ -amylase 8121

amylopectin 1166, 5044

amylose 1166, 5026, 5044, 7107,

10547

arginine 1163

azide metabolite 5030

calcium 4832

carbohydrates 2805

catalase 7096

chlorophyll 297, 2022, 2023, 2032,

2035, 2044, 3107, 3110, 5029, 5030,

6084, 6093, 7088, 7092, 7093, 8084,

8096, 8840, 9601, 10237, 10534,

10535, 10536, 10537

chymotrypsin inhibitor 10546

cysteine 1163

cystine 1163

cytochrome c reductase 2041, 10529,

10532

cytokinins 1709

deoxyribonuclease 8841

endopeptidase 5851

enzymes 2805, 3097, 5807, 8118, 8841

esterase 2856, 5851, 6089, 8076, 9605

flavonoids 6084

GA 1708

globulin 307, 317, 1163, 5043, 6096

 $\beta$ -glucanase 8121 $\beta$ -glucan 3121, 3122, 7105, 7832, 8120 $\beta$ -glucan, technique 7105

glucose-6-phosphate 10543

glutamate oxaloacetate transaminase

5851

glutamic acid 1038, 1163

glutelin 5043

glutenin 309

hemicellulose 3122

heterochromatin 2037

hexokinase 10543

histone 6086

hordein 309, 317, 1035, 1163, 2805,

4084, 4086, 4825, 5026, 5043, 5045,

7099, 8077, 8123, 8848

hordein, technique 6088

IAA 1708

IAA oxidase 1708

lysine 89, 90, 307, 309, 1025, 1029,

1031, 1035, 1036, 1038, 1166, 1708,

1718, 2033, 2040, 2049, 2050, 2805,

2852, 3088, 3112, 3118, 3121, 4099,

5041, 5042, 5043, 5046, 6095, 6096,

7102, 7106, 8079, 8118, 8701, 8702,

8863, 9426, 9611, 10241, 10517,

10543, 10546

lysine, technique 308, 1023, 1039,

3119, 3885, 5040, 5047, 6097, 8700,

8859

methionine, technique 1023

mucilage 5051

nitrate 311

nitrate reductase 311, 2041, 3104,

7095, 7104, 10529, 10532

nitrite reductase 10529

**Hordeum contd.**chemicals, as plant constituents *contd.*

nitrogen 89, 2051, 6099

nucleic acids 2805, 2857, 3103, 3107, 4084, 4824, 5806, 6081, 6086, 8841, 9614, 10243

pectin 4832

peroxidase 317, 1171

phenylalanine 6084

phosphoglucosyltransferase 10543

phosphoglucose isomerase 10543

phytoalexins 2829

polyphenol oxidase 1171

prolamin 1035, 1036, 4098, 6923

proline 1038

protein 307, 1023, 1030, 1035, 1036,

1038, 1163, 1718, 2034, 2040, 2044,

2045, 2048, 2049, 2050, 2051, 2053,

3111, 3112, 3116, 3117, 3118, 4098,

4099, 5026, 5034, 5041, 5042, 5043,

5044, 5047, 5056, 6084, 6094, 6923,

7102, 7106, 7984, 8121, 8123, 8701,

8702, 8860, 8861, 8862, 8863, 8864,

9426, 9602, 9610, 9612, 9614, 9615,

10241, 10523, 10552

protein, technique 76, 1039, 3885,

5040, 8700

protochlorophyllide 3110

ribonuclease 8841

ribulose 1,5-diphosphate carboxylase

3107

serine protease inhibitor 10546

silica 4832

starch 89, 1035, 2040, 3112, 3122,

4098, 4100, 5044, 6944, 7106, 7107,

10543

starch phosphorylase 8118

sugar 1035, 3122, 6944

sulphydryl compounds 1676

terpenoids 1171

threonine 1038

transaminase 2856

trypsin inhibitor, technique 2858

tryptophan, technique 1023

UDPglucose pyrophosphorylase 8118

chemicals, cytological effects

actinomycin D 4090

5-aminouracil 301

colchicine 3836

diethyl sulphate 10540

diisopropyl benzyl phosphorothioate

2029, 2030

dimethyl sulphate 4090

endosulfan 2029, 2030, 10538

ethyleneimine 10229

fenitrothion 2029, 2030

fenthion 2029, 2030

5-fluorouracil 4090

herbicides 2030

methyl methanesulphonate 10540

MH 9603, 10229

mitomycin C 10229

*N*-nitroso-*N*-methylurea 8108

nucleic acids 8846

pesticides 5033

procaine 2036, 8845

sodium nitrite 4090

*Tanacetum* extract 3882

triaziquone 10229

chemicals, fertility and sex, effects,

miscellaneous 8853

chemicals, general effects

aluminium 3089

atrazine 2863

chloramphenicol 3110

chlorate 7104

colchicine 8104

cycloheximide 3110

GA 8850, 10542

nucleic acids 7093

chemicals, mutagenic effects

alkylating agents 9602

azide, sodium 2031, 2041, 3101, 5030,

7096, 8116, 8839, 10532

1,4-bisdiazooacetylbutane 7094

boron 7092

5-bromodeoxyuridine 8098

caffeine 10535

chloramphenicol 10535

2,4-D 8841

diethyl sulphate 5028, 8106

diisopropyl benzyl phosphorothioate

2029, 2030

**Hordeum contd.**chemicals, mutagenic effects *contd.*

2,4-dinitrophenol 10535

endosulfan 2029, 2030

ethyl methanesulphonate 1676, 2035, 3116, 5031, 7832, 8091, 8098, 8838, 9602

ethyleneimine 1007, 1147, 1165, 1676, 10544

fenitrothion 2029, 2030

fenthion 2029, 2030

GA 3101

IAA 3101

kinetin 8096

lithium 7092

miscellaneous 1148

*N*-nitroso-*N*-dimethylurea 299, 10537*N*-nitroso-*N*-ethylurea 5029, 10537*N*-nitroso-*N*-methylbiuret 10537*N*-nitroso-*N*-methylurea 296, 314,

2033, 2034, 2035, 4089, 5029, 7094,

8096, 10534, 10537

*N*-nitroso-*N*-methylurethane 6864

proflavin 8097

*Salmonella* azide metabolite 8842

chloroplasts 2044, 10536

chromosome translocation 1031, 8103,

8108, 8844, 9603, 10198, 10229, 10539

chromosomes, aberrations 301, 1626,

2026, 2029, 2030, 2036, 3882, 4090,

7097, 8102, 8105, 8108, 8845, 8846,

9603, 9604, 10535, 10538, 10540,

10541

chromosomes, addition and substitution

6089

chromosomes, elimination 2027, 5805,

8094, 8843, 8847, 9383

chromosomes, morphology 2037, 9450,

9603, 10539

chromosomes, morphology, technique

1703, 1704

chromosomes, number 8071

climate 2805, 6090, 8864

clines 2805

*Cochliobolus* 2059, 4104, 7873, 8124,

10524, 10525

cold, effect of 3836

cold resistance 91, 2852, 3093, 3094,

3123, 5051, 10252, 10549

cold resistance, technique 5051, 10254

combining ability 303, 2019, 2020, 3100,

3108, 7100

height 9606

yield components 9606

competition 5049, 6071

composite varieties 10241

crossing over 1045

cytology, review 1161

cytoplasmic inheritance 8084, 8087

density of stand 5027, 5035, 5049, 6968,

8852

development and growth 1158, 1165,

3107, 8087, 8102, 8841

digestibility 7107, 7868, 7984, 8702

dormancy 1709, 4081, 4091, 8111

electrons 7091

embryo culture 2043, 2054, 7097, 8847

embryo sac 3103

endosperm 1030, 2049, 4100, 8068

endosperm, anatomy 2040

endosperm, colour 6091

environment 2032, 8114, 8700

*Erysiphe* 314, 1147, 1152, 2060, 2822,

2829, 2852, 3111, 3878, 4081, 4086,

5045, 5053, 5056, 5057, 5819, 6104,

6105, 7099, 8073, 8077, 8078, 8125,

8706, 8852, 8868, 8870, 8871, 9600,

10241, 10550, 10551, 10552

physiological races 3125, 7083, 7114,

9617

Denmark 8869

India 7113

Latvian SSR 6106

Poland 7115

*Erysiphe*, technique 3126

experimental designs 4805, 6071

foliage area 6102

forage 4101, 7984

fungi 1724, 8706, 10253

fungi, technique 6883, 8867, 10548



**Hordeum** *contd.*

- $\gamma$  rays 294, 300, 1007, 1626, 1676, 1718, 2032, 2035, 2036, 2046, 3112, 4105, 5031, 6864, 7093, 8096, 8113, 8117, 8839, 8845, 8846, 10535
- gene location 94, 316, 1031, 2022, 2023, 2049, 5032, 5851, 6923, 7088, 8085
- acid phosphatase 10531
- $\beta$ -amylase 10531
- awns, size 8092
- chlorophyll 9601
- Erysiphe* 8078
- glucose-6-phosphate dehydrogenase 10531
- malate dehydrogenase 10531
- nucleic acids 10243
- phosphoglucosomerase 10531
- seed, shape 8080, 8088
- seed, size 9601
- sterility, female 8078
- genetic resources 1699, 2054, 3875, 8070, 8071
- genetic variance
  - height 8856
  - internode, length 8856
  - photoperiodism 10530
- genetics 8082, 8083
- albumin 307
- alcohol dehydrogenase 5036, 5851, 8858
- apomixis 6850
- awns 9601
- awns, colour 10544
- awns, length 9612
- chlorophyll 2022, 2023, 3110, 7088, 8084, 9601
- development and growth 8087
- endopeptidase 5851
- endosperm 2049, 8068
- endosperm, texture 2031
- enzymes 2805
- Erysiphe* 1147, 2060, 4086, 5045, 6104, 7099, 7113, 7115, 8073, 8077, 8078, 8125, 8706, 8868, 8869, 8871, 9617
- esterase 2856, 5851
- GA 8850
- globulin 307
- glutamate oxaloacetate transaminase 5851
- growth period 6083, 8075, 8115
- gynecium 8074
- height 1149, 2022, 2023, 3109, 6083, 6085, 8850
- Heterodera* 94, 8073
- hordein 309, 2805, 4086, 5045, 8077
- inflorescence 1149, 8855, 10542
- inflorescence, colour 10544
- leaf, colour 10544
- ligule 8089
- lysine 307, 1031, 3121, 6095, 8079, 8859, 9611
- meiosis 3102
- naked grain 8074, 9612
- necrotic leaf spotting 8088
- nitrate reductase 2041, 10529, 10532
- photosynthesis 7091
- polyploidy 3102, 9383
- prolamine 307
- Puccinia* 5059, 5060, 6109, 7099, 8872
- review 1161
- seed, shape 8080, 8088
- seed, size 9601
- seedlings 6085
- spikelets 3112
- spikelets, number 316
- sterility, female 8078
- sterility, male 6086, 8068
- sterility, male, cytoplasmic 306
- transaminase 2856
- Ustilago* 315, 316, 8126
- Ustilago* seed, colour 8077
- viruses 3131, 4105, 9618
- xenia 2049
- yield components 6083
- genome analysis 5199, 5851, 6923
- genotype  $\times$  environmental interaction 295, 1702, 2053, 2805, 6080, 7102, 8121
- geography 1168, 8070, 8122
- germination 6071, 8102, 8111
- germplasm banks
  - Argentina 7844

**Hordeum** *contd.*

- germplasm banks *contd.*
  - Chile 7844
  - German Federal Republic 8109
  - Japan 7844
  - Poland 1663
  - Syrian Arab Republic 7844
  - USA 8069, 8101
- germplasm releases, USA 10516, 10521
- growth period 302, 305, 2046, 2852, 4093, 4102, 6080, 6083, 7101, 8075, 8087, 8115, 8849, 9410
- gynecium 18, 8074, 8116
- habit 296, 6080
- hail 4102
- hairs 4832
- haploidy 1016, 1629, 2043, 4083, 4088, 5805, 6070, 6089, 6850, 7097, 8090, 8094, 8847, 9605
- review 5781
- harvest index 8849
- heat and drought resistance 313, 2055, 2056, 2058, 4096, 4886, 5813, 7867, 7871, 8865, 10252
- height 1149, 1152, 2022, 2023, 2038, 2039, 2042, 2046, 2852, 3109, 3879, 4077, 4095, 4096, 6080, 6083, 6085, 6102, 7100, 7103, 8067, 8075, 8087, 8849, 8850, 8856, 9410, 9606, 10542
- heritability 304, 2039, 3108, 4077, 4078, 4085, 4104, 6092
- $\alpha$ -amylase 8121
- $\beta$ -amylase 8121
- $\beta$ -glucanase 8121
- height 8067
- photoperiodism 10530
- Heterodera* 94, 318, 2864, 6885
- physiological races 8073
  - Denmark 10241
  - India 7118
- heterosis 304, 2019, 2020, 2028, 2039, 3099, 3100, 4078, 5027, 7090, 7103, 7863
- growth period 8849
- heterozygosis 8844
- history and evolution 1154, 1155, 4824, 4825, 7850, 8122, 8123
- homozygosis 6070
- hybridization 1678, 2047, 6100
- hybridization, intergeneric, review 1159
- hybridization, interspecific 1045, 2025, 2026, 2027, 2054, 2805, 3097, 4088, 5805, 6082, 6083, 6089, 7097, 8094, 8836, 8837, 8843, 8847, 9605, 10521
- review 1159
- immunology 7095
- inflorescence 1149, 2048, 5026, 5031, 6068, 8087, 8855, 10542
- inflorescence, colour 10544
- inflorescence, length 8838
- inflorescence, number 3131, 8113, 8852
- inflorescence, size 3112, 3879, 8087
- internode 2039, 3879
- internode, length 8856
- internode, number 4077, 8067
- internode, size 2042
- land races 305, 7099
- leaf, colour 8865, 10544
- leaf, length 10542
- leaf, number 4093
- leaf, shape 8852
- Leptosphaeria* 7112
- lethals 7091, 10536
- light, effect of 1711, 5057, 10542
- ligule 8089, 8098
- linkage 94, 316, 2022, 2023, 2049, 3109, 4086, 4090, 5036, 5045, 8076, 8079, 8080, 8081, 8085, 8086, 8090, 8091, 8835
- awns 9601
- chlorophyll 9601
- endosperm 8068
- Erysiphe* 8077, 8125, 9617
- growth period 8075
- gynecium 8074
- hordein 8077
- lysine 8079
- naked grain 8074
- necrotic leaf spotting 8088
- seed, colour 8077
- sterility, male 8068
- Ustilago* 8077

**Hordeum** *contd.*

- lodging 93, 302, 1152, 2042, 2852, 3093, 6070, 6103, 8706, 8852, 8864, 8866, 9616, 10519
- matrocliny 2049
- Mayetiola* 1156
- meiosis 1045, 2025, 3102, 4090, 5033, 5199, 7866, 8102, 8105, 8107, 8844, 9604, 9605, 10538
- Metopolophium* 2865
- mitochondria 7863
- mixtures of crops or genotypes 3125, 5053, 7850, 8870, 8871, 10241
- modifiers 5037, 8868
- molecular genetics 2857, 4084, 4824, 5806, 6081
- multiple alleles, *Erysiphe* 8868
- multiple genes 8076, 8087
- multivariate analysis 4079, 8857, 9608
- mutation 311, 1030, 1031, 1035, 1036, 1676, 2044, 2049, 3104, 3110, 6084, 7081, 8082, 8083, 8089, 8091, 10237
- awns 9601
  - chlorophyll 8084, 9601
- chloroplasts 10536
- gynecium 8074
- lysine 8079, 10543
- necrotic leaf spotting 8088
- photosynthesis 7091
- protein 8863
- seed, size 9601
- sterility, male 8851
- mutation, back 8098
- mutation, induced 89, 294, 296, 297, 299, 300, 302, 314, 1007, 1029, 1147, 1148, 1165, 1626, 1678, 1718, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2041, 2046, 3101, 3112, 3116, 3117, 4089, 4105, 5028, 5029, 5030, 5031, 6107, 7092, 7093, 7094, 7095, 7096, 7114, 7832, 8091, 8096, 8098, 8839
- asynapsis 8106
- awns, colour 10544
- awns, size 8092
- book 298, 6866
- chlorophyll 8840, 10534, 10535, 10537
- development and growth 8841
- Erysiphe* 8868
- gynecium 8116
- inflorescence 10542
- inflorescence, colour 10544
- inflorescence, number 8113
- leaf, colour 10544
- nitrate reductase 10532
- protein 9602
- seed, shape 8088
- viruses 9618
- yield components 8117
- mutation, technique 8095
- naked grain 2051, 2852, 5024, 5025, 6094, 7106, 8074, 9612, 10516, 10547
- necrotic leaf spotting 8088
- neutrons 314, 2034, 7092, 8108, 10534
- nucleolus 8103, 10198
- nucleus 6087, 7866
- Oscinella* 10253, 10256
- Oscinella*, technique 8867, 10548
- Oulema* 1156, 4832
- outcrossing 5038, 7079
- pathology 1157, 3867
- photoperiodism 305, 2028, 3862, 4085, 4093, 7102, 10530
- photosynthesis 1711, 2044, 3114, 6093, 6944, 7091
- plant introduction
  - from Netherlands 1154
  - from Spain 1154
  - from UK 1154
  - to Japan 6074
  - to USA 1154
- pleiotropy 1031, 6085, 8838, 8850
- pollen 5026, 6087, 9408, 9424
- pollen, size 3836
- pollen, size, technique 6881
- pollination 7079
- pollination, technique 5039, 9607
- polymorphism 5807
- polyploidy 310, 1151, 2026, 2054, 3102, 3836, 4092, 5034, 7097, 7850, 8070, 8104, 8109, 8110, 8836, 8844, 8847, 9383, 9408, 9605
- population genetics 2021
- precipitation 3121, 5038



**Hordeum contd.**

- Pseudocercospora* 2861, 4828  
 physiological races 4827, 5818  
*Puccinia* 1170, 1171, 1688, 2852, 3111, 3112, 3878, 5053, 5058, 5059, 6078, 6079, 6108, 7099, 8706, 10521, 10524, 10525, 10555  
 physiological races 3129, 6109  
 Canada 5821  
 German Democratic Republic 8872  
 USSR 5060  
*Pyrenophora* 1168, 3111, 4103, 5052, 6079, 9600, 10519, 10550  
 physiological races  
 Poland 1168  
 USSR 7111  
 quality, for malting and brewing 1162, 2052, 3086, 3096, 3115, 3120, 5044, 5801, 6098, 6099, 7832, 8671, 8860, 9425, 9608, 9609, 9610, 9612, 9615  
 quality, for malting and brewing, technique 5785, 5786  
 quality, for milling and baking 1166, 9609  
 quality, for nutrition 1717, 6097, 7108, 7984, 8702  
 quality, technique 10547  
 radiation 297, 298, 8840  
 recombination 6, 74, 299, 4090, 8089  
 reflectance 4822, 7870  
 respiration 5056, 7863, 10552  
*Rhopalosiphum* 319, 10255, 10258  
*Rhynchosporium* 1169, 3111, 3124, 3878, 5022, 5055, 5820, 6077, 10525  
 physiological races, Italy 7110  
 root 1171, 2038, 4095, 7867, 9614  
 root, length 10542  
 root, number 6101  
 root, size 8119  
 root, technique 10233  
 root, weight 8119  
 salinity 68, 312, 1684, 2055, 2056, 5791, 6101, 6102, 6875, 7109, 9614, 10541  
*Schizaphis* 1156  
 seed 1158, 1163, 1166  
 seed, anatomy 9613  
 seed, colour 4077, 5061, 6068, 8077  
 seed, length 8838  
 seed, moisture 3122, 8102, 10540  
 seed, number 1035, 3131, 3883, 4093  
 seed production 5050, 7079  
 seed, shape 8080, 8088  
 seed, size 1031, 1709, 2052, 3088, 8123, 9601, 9610  
 seed storage 8102  
 seed, texture 2033  
 seed, weight 2048, 2049, 2051, 3106, 3108, 4093, 4094, 5041, 5056, 6080, 7102, 7109, 8838, 8862, 9610, 10552  
 seedlings 1165, 6085, 10248  
 seedlings, size 4094  
 selection, artificial 2019, 2020, 3088, 4104, 5049, 8067, 9616  
 selection, natural 6, 66, 1699, 6068, 6069  
*Septoria* 5820  
 shedding 3090, 4102  
 silage 2057  
*Sitobion* 1156, 2865  
*Sitophilus* 5061  
 soil moisture 5038  
 soil pH 3089  
 sowing and planting date 4101, 5808, 6968  
 spikelets 3112  
 spikelets, anatomy 9613  
 spikelets, number 316  
 spring and winter habit 2047, 2853, 3113, 5808, 8848  
 stability 295, 2024, 6098  
 sterility and fertility 2026, 2027, 2030, 2035, 3097, 3101, 4092, 5034, 6082, 7098, 8096, 8110, 8836, 8844, 10538  
 sterility, female 8078  
 sterility, male 3088, 5028, 6086, 7079, 8068, 8069, 8851  
 sterility, male, cytoplasmic 306, 8114  
 stomata, number 3114, 9408  
 stomata, size 9408  
 succession, crop 1142  
 taxonomy 310, 1158, 5048, 6100, 8123, 9613  
 taxonomy, technique 4100

**Hordeum contd.**

- temperature, effect of 91, 1147, 2028, 3129, 5038, 6082, 6090, 8102, 10555  
 tillering 2046, 4097, 5035, 8087, 8838  
 tissue culture 2026, 2043, 6089, 7097, 9605  
 transformation 5026  
*Typhula* 5054  
*Ustilago* 315, 316, 3127, 3128, 6079, 6107, 7116, 7117, 8077, 10519, 10524, 10525, 10554  
 physiological races 317, 8126  
 USSR 10553  
 varieties  
 Australia 1146, 6076, 7085, 7087  
 Austria 3854  
 Bulgaria 294  
 Canada 4082, 4083, 6073, 6077, 6078, 6079, 10524, 10525, 10526  
 Czechoslovakia 294  
 Denmark 6880  
 France 1044, 9423  
 Japan 4081, 5024, 5025, 6074, 8832  
 Kazakh SSR 7086  
 Pakistan 6075  
 Rhodesia 2813  
 S. Korea 3093, 3094, 3095  
 Sweden 6880, 7083, 8073, 9405  
 Switzerland 1043, 3092, 6880  
 Ukrainian SSR 9420, 10527, 10528  
 USA 1142, 1143, 1144, 1145, 3096, 5023, 8833  
 USSR 7084  
 varieties, classification 76, 317, 4079, 4100, 6088, 6091, 7099, 7870, 8848  
 variety trials  
 Austria 4811  
 Brazil 6072  
 Bulgaria 2017  
 Europe 3120  
 Finland 8682  
 German Democratic Republic 3086  
 Italy 2018  
 Kazakh SSR 1700  
 New Zealand 3091  
 Norway 6878, 9422  
 Portugal 10523  
 UK 2855, 5801, 5802, 5819, 5820, 6090  
 Ukrainian SSR 9600  
 USA 72, 1042, 4821  
 USSR 292, 6879, 10522  
 Uzbek SSR 293  
 variety trials, technique 5800, 8693  
 vascular tissue 9613  
 viruses 2852, 3131, 4105, 8706, 8837, 9618, 10521  
 water balance 91, 2058, 4095, 5057, 5813, 7101, 7871, 8865  
 waterlogging 3094, 3095  
 weight, technique 6071  
 X rays 296, 1718, 8088, 10542  
 xenia 2049  
 yield components 303, 304, 1148, 1149, 1152, 1164, 1700, 2028, 2039, 2045, 2046, 2805, 3108, 3111, 3112, 3116, 3131, 4078, 5035, 6069, 6083, 6092, 6101, 6102, 7100, 7101, 7103, 7107, 8072, 8075, 8117, 8849, 8854, 8857, 9410, 9600, 9606

**Hordeum × Agropyron**, hybridization, intergeneric 2025, 5199**Hordeum × Elymus**, hybridization, intergeneric 8837, 10244, 10521**Hordeum × Secale**

- aneuploidy 1045, 8099  
 cell division 1045, 8099  
 chemicals, as plant constituents  
 heterochromatin 4087  
 starch 8112  
 chemicals, fertility and sex, effects  
 GA 8093  
 kinetin 8093  
 chromosomes, aberrations 8099  
 chromosomes, morphology 4087  
 crossing over 1045, 4087, 10533  
 development and growth 8112  
 embryo culture 3098, 7089, 8093  
 haploidy 4087  
 hybridization, intergeneric 1045, 2852, 3098, 4087, 7089, 8093, 8099, 8112, 10533  
 meiosis 1045, 3098, 4087, 10533

**Hordeum × Secale contd.**

- polyploidy 7089  
 seed 8112  
 sterility and fertility 3098, 7089  
**Hordeum × Secale × Triticum**  
 chemicals, as plant constituents, esterase 1768, 1769  
 chromosomes, number 1768, 1769  
 hybridization, intergeneric 1768, 1769, 2889, 7906  
 meiosis 1768, 1769, 7906  
 sterility and fertility 2889

**Hordeum × Triticum**

- aneuploidy 1774, 7865  
 cell division 7865  
 chemicals, as plant constituents  
 acid phosphatase 10531  
 alcohol dehydrogenase 5851  
 aminopeptidase 5851  
 $\beta$ -amylase 10531  
 endopeptidase 5851  
 esterase 5851  
 glucose-6-phosphate dehydrogenase 10531  
 glutamate oxaloacetate transaminase 5851  
 malate dehydrogenase 10531  
 phosphoglucose isomerase 10531  
 chromosomes, addition and substitution 5851  
 chromosomes, elimination 5805, 6924  
 chromosomes, morphology 9450  
 chromosomes, number 3900, 3905, 7865  
 embryo culture 2897, 3907  
 gene location 5851  
 genetics  
 alcohol dehydrogenase 5851  
 aminopeptidase 5851  
 endopeptidase 5851  
 glutamate oxaloacetate transaminase 5851  
 sterility and fertility 9452  
 genome analysis 5851, 6923, 10244  
 haploidy 2897, 6924  
 hybridization, intergeneric 1045, 1774, 2889, 2897, 3900, 3905, 3907, 3909, 5805, 5851, 6923, 6924, 7865, 7907, 9450, 9452, 10244, 10531  
 review 10265  
 meiosis 1045, 1774, 3900, 7865, 10244  
 sterility and fertility 3900, 9452  
 sterility, male 3900  
 viruses 3905

**Hordeum - Vicia**, broad bean, protoplast fusion 8834**Horse bean** (see *Vicia*, broad bean)**Horse chestnut** (see *Aesculus*)**Houttuynia**, chemicals, as plant constituents, oil, essential 2446**Humidity**

- Bromus* 6217  
*Cicer* 2750  
*Glycine* 6760, 11164  
*Medicago* 446  
*Oryza* 4207  
*Secale × Triticum* 6919

**Humulus**

- centromere 2397  
 chemicals, as plant constituents  
 $\alpha$ -acids 10807  
 tannin 10807  
 chromosomes, morphology 2397  
 geography 8359  
 glands 5369  
 growth period 5367  
 habit 5367  
 hairs 5369  
 heritability 5367  
 inflorescence, number 5367  
 leaf 5369  
 quality, for storage 10807  
*Tetranichus* 5368, 5369  
 varieties, Japan 3857  
 varieties, classification 8359  
*Verticillium* 3496  
 physiological races, UK 4452  
 viruses 3496  
 yield components 5367

**Hutera**

- germination 3665  
 hybridization, interspecific 3665  
 sterility and fertility 3665



**Hutera × Rhynchosinapis**

- germination 3665
- hybridization, intergeneric 3665
- sterility and fertility 3665

**Hyalopterus, Prunus, peach 3564****Hybrid chlorosis**

- Triticum* 1824, 2918
- Vaccinium* 9985

**Hybrid necrosis**

- Secale* × *Triticum*, tritcale 5942
- Triticum* 1824, 6916, 7947, 10276

**Hybrid varieties**

- Allium*, onion 8497, 8506, 10046
- Asparagus* 1528
- Beta*, sugar beet 9840
- Brassica*, cabbage 4615, 10996
- Brassica*, cauliflower 1543
- Brassica*, Chinese cabbage 4616
- Brassica*, red cabbage 4615
- Capsicum* 8495
- Cocos* 1468
- Cucumis*, cucumber 9252, 10068, 10071
- Cucumis*, melon 7680
- Cynodon* 5173
- Daucus* 831, 832, 833, 834, 835
- Festuca* × *Lolium* 1252
- Gossypium* 2291
- Helianthus*, sunflower 2410, 3468, 4471, 6443, 9067
- Lycopersicon* 6648, 9259, 9260, 9262
- Medicago* 1265, 3263
- Nicotiana* 3425, 7438
- Oryza* 8909, 9674
- Saccharum* 566
- Solanum*, egg plant 10085
- Sorghum* 1184, 2080, 4127, 6131, 9640
- Triticum* 1063, 2899, 7875
- review 2893
- Zea*, maize 237, 238, 241, 242, 1121, 1123, 1940, 1941, 3029, 4007, 5986, 10443, 10487

**Hybrid varieties, technique**

- Brassica*, Brussels sprouts 2608, 3675, 7674
- Brassica*, cabbage 2608, 3675
- Brassica*, kale 2608
- Brassica*, rape 9055
- Brassica*, sprouting broccoli 2608
- Cucumis*, cucumber 7688, 7690, 8535
- Lycopersicon* 4645, 5628
- Sorghum* 5081, 5082, 8881
- Trifolium*, red clover 3280
- Triticum* 5892
- Zea*, maize 1963, 1964

**Hybrid vigour (see Heterosis)****Hybridization**

- Allium*, onion 5558
- Beta*, beetroot × *Beta*, sugar beet 7656
- Beta*, fodder beet × *Beta*, sugar beet 10760
- Beta*, sugar beet × *Beta*, beetroot 7656
- Beta*, sugar beet × *Beta*, fodder beet 10760
- Brassica* 2605
- Brassica*, broccoli × *Brassica*, cabbage 10973
- Brassica*, Brussels sprouts × *Brassica*, cabbage 4613
- Brassica*, cabbage 5581
- Brassica*, cabbage × *Brassica*, broccoli 10973
- Brassica*, cabbage × *Brassica*, Brussels sprouts 4613
- Brassica*, cabbage × *Brassica*, cauliflower 10973
- Brassica*, cauliflower × *Brassica*, cabbage 10973
- Brassica*, Chinese cabbage × *Brassica*, rape 8515
- Brassica*, Chinese cabbage × *Brassica*, turnip 8515
- Brassica*, oil crops 4454
- Brassica*, rape 2605
- Brassica*, rape × *Brassica*, Chinese cabbage 8515
- Brassica*, rape × *Brassica*, swede 1401, 5569
- Brassica*, red cabbage 5581
- Brassica*, swede × *Brassica*, rape 1401, 5569
- Brassica*, turnip × *Brassica*, Chinese cabbage 8515
- Citrus* 9128

**Hybridization contd.**

- Citrus*, mandarin 724
- Cocos* 2515
- Dactylis* 6207, 6208, 6213
- Daucus* 10970
- Gossypium* 5285, 5295, 6358, 9803, 9807
- Hordeum* 1678, 2047, 6100
- Lycopersicon* 6653
- Morus* 734
- Nicotiana* 1678
- Oryza* 1224, 2107, 8175
- Picea* 8488, 9203
- Pisum* 6780
- Populus* 4580
- Pyrus* 1447
- Salix* 4580, 5527
- Secale* 4938
- Solanum*, egg plant 5635
- Solanum*, potato 500, 2258, 3314, 3315, 3321, 6301, 10685
- Sorghum* 3140
- Triticum* 1678, 1803, 2944, 3903
- Xanthosoma* 2359
- Zea*, maize 1678, 3024, 6017, 10504

**Hybridization, intergeneric**

- Aegilops* × *Secale* 5974
- Aegilops* × *Triticum* 107, 108, 109, 126, 185, 1067, 1767, 1775, 1780, 1820, 1873, 1886, 3899, 3906, 3913, 3915, 4856, 5872, 6923, 7897, 7908, 7915, 7919, 7931, 7972, 8728, 9389, 9492, 10308, 10370, 10394
- Agropyron* × *Elymus* 7269, 9741
- Agropyron* × *Hordeum* 2025, 5199
- Agropyron* × *Secale* 230
- Agropyron* × *Secale* × *Triticum* 10299
- Agropyron* × *Sitanion* 7269
- Agropyron* × *Triticum* 116, 117, 118, 122, 123, 125, 126, 154, 164, 203, 1064, 1072, 1772, 1776, 2860, 2891, 2894, 2895, 2896, 2903, 2904, 3904, 3908, 4850, 4851, 5854, 6865, 6923, 7969, 7970, 8733, 8735, 8950, 10307
- review 1770
- Althaea* × *Gossypium* 2292
- Apium* × *Petroselinum* 8523, 10065, 11001, 11002
- Atylosia* × *Cajanus* 2797, 4763, 6815
- Brassica*, cabbage × *Brassica*, kale × *Raphanus* 3678
- Brassica*, cabbage × *Brassica*, rape × *Raphanus* 3458
- Brassica*, cabbage × *Raphanus* 2606, 3660
- Brassica* × *Eruca* 3665
- Brassica*, kale × *Brassica*, cabbage × *Raphanus* 3678
- Brassica*, kale × *Raphanus* 3662, 10987
- Brassica*, oil crops × *Raphanus* 9238
- Brassica*, rape × *Brassica*, cabbage × *Raphanus* 3458
- Brassica*, rape × *Raphanus* 2606, 5572
- Brassica* × *Raphanus* 852, 853, 855, 1401, 1530, 1531, 3660, 3667, 3673, 3674, 5569, 9407
- review 856
- Brassica*, turnip × *Raphanus* 2606
- Cajanus* × *Atylosia* 2797, 4763, 6815
- Cajanus* × *Phaseolus* 4677
- Carica* × *Passiflora* 2464
- cereals 82, 3881, 5804
- review 75
- Chamaecyparis* × *Cupressus* 5530
- Citrus* × *Dodonaea* 2464
- Citrus*, grapefruit × *Poncirus* 717, 726
- Citrus*, lemon × *Poncirus* 726, 5454, 9965, 10890
- Citrus*, lime × *Fortunella* 9965
- Citrus*, mandarin × *Poncirus* 717, 726, 5451, 9965
- Citrus*, orange × *Fortunella* × *Poncirus* 9961
- Citrus*, orange × *Poncirus* 726, 1461, 2504, 2506, 9128, 9954, 9962, 9965, 9966, 10214
- Citrus*, pomelo × *Poncirus* 717, 726
- Citrus* × *Poncirus* 1458, 2504, 2505, 5451
- Cucurbita* × *Luffa* 9251
- Cupressus* × *Chamaecyparis* 5530
- Dactylis* × *Festuca* 8222
- Dodonaea* × *Citrus* 2464

**Hybridization, intergeneric contd.**

- Elymus* × *Agropyron* 7269, 9741
- Elymus* × *Hordeum* 8837, 10244, 10521
- Elymus* × *Triticum* 115, 118, 125, 10244
- Erianthus* × *Saccharum* 7416
- Eruca* × *Brassica* 3665
- Euchlaena* × *Zea*, maize 240, 243, 244, 245, 1129, 4072, 7041, 7049, 8022, 8048, 9544, 9545, 9580, 9598
- Festuca* × *Dactylis* 8222
- Festuca* × *Lolium* 415, 1247, 1252, 3222, 3223, 4262, 5180, 5182, 7227, 7256, 7257, 7258, 7260, 8222, 8238, 9388, 10635
- Festuca* × *Pennisetum* 8222
- Festuca* × *Poa* 8222
- Fortunella* × *Citrus*, lime 9965
- Fortunella* × *Citrus*, orange × *Poncirus* 9961
- Fortunella* × *Poncirus* 726, 2504
- fruit crops 6472
- Gossypium* × *Althaea* 2292
- Gossypium* × *Hibiscus* 2292, 7379
- Gossypium* × *Malva* 2292
- Haynaldia* × *Triticum* 10300
- Hibiscus* × *Gossypium* 2292, 7379
- Hordeum*, review 1159
- Hordeum* × *Agropyron* 2025, 5199
- Hordeum* × *Elymus* 8837, 10244, 10521
- Hordeum* × *Secale* 1045, 2852, 3098, 4087, 7089, 8093, 8099, 8112, 10533
- Hordeum* × *Secale* × *Triticum* 1768, 1769, 2889, 7906
- Hordeum* × *Triticum* 1045, 1774, 2889, 2897, 3900, 3905, 3907, 3909, 5805, 5851, 6923, 6924, 7865, 7907, 9450, 9452, 10244, 10531
- review 10265
- Hutera* × *Rhynchosinapis* 3665
- Lablab* × *Macrotyloma* 9408
- Lablab* × *Phaseolus* 4677
- Lolium* × *Festuca* 415, 1247, 1252, 3222, 3223, 4262, 5180, 5182, 7227, 7256, 7257, 7258, 7260, 8222, 8238, 9388, 10635
- Lolium* × *Poa* 8222
- Luffa* × *Cucurbita* 9251
- Lycopersicon* × *Solanum* 898, 901, 902, 912, 4642, 7703, 7713, 8545, 10076
- Macrotyloma* × *Lablab* 9408
- Malus* × *Pyrus* 681, 7546
- Malva* × *Gossypium* 2292
- Oryza* × *Sorghum* 4193, 4194, 4195
- Oryza* × *Triticum* 4196
- Passiflora* × *Carica* 2464
- Pennisetum* × *Festuca* 8222
- Petroselinum* × *Apium* 8523, 10065, 11001, 11002
- Phaseolus* × *Cajanus* 4677
- Phaseolus* × *Lablab* 4677
- Phaseolus* × *Vigna*, cowpea 2686, 4677
- Poa* × *Festuca* 8222
- Poa* × *Lolium* 8222
- Poncirus* × *Citrus* 1458, 2504, 2505, 5451
- Poncirus* × *Citrus*, grapefruit 717, 726
- Poncirus* × *Citrus*, lemon 726, 5454, 9965, 10890
- Poncirus* × *Citrus*, mandarin 717, 726, 5451, 9965
- Poncirus* × *Citrus*, orange 726, 1461, 2504, 2506, 9128, 9954, 9962, 9965, 9966, 10214
- Poncirus* × *Citrus*, orange × *Fortunella* 9961
- Poncirus* × *Citrus*, pomelo 717, 726
- Poncirus* × *Fortunella* 726, 2504
- Psidium* × *Punica* 2464
- Punica* × *Psidium* 2464
- Pyrus* × *Malus* 681, 7546
- Raphanus* × *Brassica* 852, 853, 855, 856, 1401, 1530, 1531, 3660, 3667, 3673, 3674, 5569, 9407
- Raphanus* × *Brassica*, cabbage 2606, 3660
- Raphanus* × *Brassica*, cabbage × *Brassica*, kale 3678
- Raphanus* × *Brassica*, cabbage × *Brassica*, rape 3458
- Raphanus* × *Brassica*, kale 3662, 10987



**Hybridization, intergeneric contd.**

- Raphanus* × *Brassica*, oil crops 9238  
*Raphanus* × *Brassica*, rape 2606, 5572  
*Raphanus* × *Brassica*, turnip 2606  
*Rhynchosinapis* × *Hutera* 3665  
*Saccharum* × *Erianthus* 7416  
*Secale* × *Aegilops* 5974  
*Secale* × *Agropyron* 230  
*Secale* × *Agropyron* × *Triticum* 10299  
*Secale* × *Hordeum* 1045, 2852, 3098, 4087, 7089, 8093, 8099, 8112, 10533  
*Secale* × *Hordeum* × *Triticum* 1768, 1769, 2889, 7906  
*Secale* × *Triticum* 121, 126, 132, 199, 230, 1886, 1887, 1912, 2850, 2900, 2911, 3001, 3912, 4003, 5810, 5855, 5856, 5864, 5943, 6919, 6923, 7955, 7995, 8777, 8778, 9424, 9452, 9501, 9513, 10296, 10297, 10301, 10415  
*Secale* × *Triticum*, triticales 13, 43, 58, 74, 76, 118, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 1042, 1048, 1108, 1115, 1727, 1753, 1787, 1845, 1875, 1876, 1877, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 2850, 2851, 2948, 2990, 2991, 2992, 2993, 2994, 2995, 2996, 2997, 2998, 2999, 3000, 3001, 3883, 3980, 3981, 3982, 3983, 3984, 3985, 3986, 3987, 3988, 3989, 3990, 4830, 4879, 4920, 4921, 4922, 4923, 5809, 5811, 5813, 5836, 5939, 5940, 5941, 5942, 5943, 5944, 5945, 5946, 5947, 5948, 5949, 5950, 5951, 5952, 5953, 5954, 6881, 6990, 6991, 6992, 6993, 6994, 6995, 6996, 6997, 6998, 6999, 7000, 7001, 7002, 7003, 7004, 7851, 7871, 7919, 7976, 7977, 7978, 7979, 7980, 7982, 7983, 7984, 7985, 8695, 8703, 8707, 8774, 8775, 8776, 8777, 8778, 8779, 8781, 9383, 9407, 9497, 9498, 9499, 9500, 10395, 10396, 10397, 10398, 10399, 10400  
 review 1874  
*Secale* × *Triticum*, triticales × *Hordeum* 2889  
*Sitanion* × *Agropyron* 7269  
*Solanum* × *Lycopersicon* 898, 901, 902, 912, 7703, 7713, 8545, 10076  
*Sorghum* × *Oryza* 4193, 4194, 4195  
*Tripsacum* × *Zea*, maize 247, 248, 1951, 4019, 4023, 7049, 7078, 9544, 9580, 10444, 10445, 10446  
*Triticum* 4836, 7918, 9390  
*Triticum* × *Aegilops* 107, 108, 109, 126, 185, 1067, 1767, 1775, 1780, 1820, 1873, 1886, 3899, 3906, 3913, 3915, 4856, 5872, 6923, 7897, 7908, 7915, 7919, 7931, 7972, 8728, 9389, 9492, 10308, 10370, 10394  
*Triticum* × *Agropyron* 116, 117, 118, 122, 123, 125, 126, 154, 164, 203, 1064, 1072, 1770, 1772, 1776, 2860, 2891, 2894, 2895, 2896, 2903, 2904, 3904, 3908, 4850, 4851, 5854, 6865, 6923, 7969, 7970, 8733, 8735, 8950, 10307  
*Triticum* × *Agropyron* × *Secale* 10299  
*Triticum* × *Elymus* 115, 118, 125, 10244  
*Triticum* × *Haynaldia* 10300  
*Triticum* × *Hordeum* 1045, 1774, 2889, 2897, 3900, 3905, 3907, 3909, 5805, 5851, 6923, 6924, 7865, 7907, 9450, 9452, 10244, 10265, 10531  
*Triticum* × *Hordeum* × *Secale* 1768, 1769, 2889, 7906  
*Triticum* × *Oryza* 4196  
*Triticum* × *Secale* 13, 43, 58, 74, 76, 118, 121, 126, 132, 199, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 230, 1042, 1048, 1108, 1115, 1727, 1753, 1787, 1845, 1874, 1875, 1876, 1877, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1912, 2850, 2851, 2900, 2911, 2948, 2990, 2991, 2992, 2993, 2994, 2995, 2996, 2997, 2998, 2999, 3000, 3001, 3883, 3912, 3980, 3981, 3982, 3983,

**Hybridization, intergeneric contd.**

- Triticum* × *Secale* contd.  
 3984, 3985, 3986, 3987, 3988, 3989, 3990, 4003, 4830, 4879, 4920, 4921, 4922, 4923, 5809, 5810, 5811, 5813, 5836, 5855, 5856, 5864, 5939, 5940, 5941, 5942, 5943, 5944, 5945, 5946, 5947, 5948, 5949, 5950, 5951, 5952, 5953, 6881, 6919, 6923, 6989, 6990, 6991, 6992, 6993, 6994, 6995, 6996, 6997, 6998, 6999, 7000, 7001, 7002, 7003, 7004, 7851, 7871, 7919, 7955, 7976, 7977, 7978, 7979, 7980, 7982, 7983, 7984, 7985, 7995, 8695, 8703, 8707, 8774, 8775, 8776, 8777, 8778, 8779, 8781, 9383, 9407, 9424, 9452, 9497, 9498, 9499, 9500, 9501, 9513, 10296, 10297, 10301, 10395, 10396, 10397, 10398, 10399, 10400, 10415  
*Vigna*, cowpea × *Phaseolus* 2686, 4677  
*Zea*, maize × *Euchlaena* 240, 243, 244, 245, 1129, 4072, 7041, 7049, 8022, 8048, 9544, 9545, 9580, 9598  
*Zea*, maize × *Tripsacum* 247, 248, 1951, 4019, 4023, 7049, 7078, 9544, 9580, 10444, 10445, 10446  
**Hybridization, interspecific** 9384, 9388  
*Aegilops* 1873, 7971  
*Agave* 10744  
*Agropyron* 428, 2201, 2202, 3230, 3232, 4271, 6234, 7268, 7269, 7911, 8246  
*Allium*, minor species × *Allium*, onion 5722, 8507  
*Allium*, onion 4607, 10972  
*Allium*, onion × *Allium*, minor species 5722, 8507  
*Allium*, onion × *Allium*, shallot 5557  
*Allium*, shallot × *Allium*, onion 5557  
*Alnus* 8466  
*Amelanchier* 766  
*Arachis* 2795, 6457, 7507, 7512  
*Atylosia* 2798  
*Avena* 75, 226, 1898, 3993, 5962, 5963, 5964, 5969, 7009, 8782, 10403  
*Beta* 1364  
*Beta*, sugar beet 2350, 2351, 3396, 5329, 7421, 10764  
*Betula* 1504, 10030  
*Brassica* 852, 7667, 8514, 10054, 10995  
 review 856  
*Brassica*, cabbage 5566, 7673  
*Brassica*, cabbage × *Brassica*, sprouting broccoli × *Brassica*, swede 5585  
*Brassica*, cabbage × *Brassica*, swede 5585  
*Brassica*, Chinese cabbage 7837  
*Brassica*, kale 1530  
*Brassica*, kale × *Brassica*, rape 3664  
*Brassica*, oil crops 632, 3455, 9056  
*Brassica*, oil crops × *Brassica*, rape 3463  
*Brassica*, rape 632, 1406, 3664, 7837, 9056  
*Brassica*, rape × *Brassica*, kale 3664  
*Brassica*, rape × *Brassica*, oil crops 3463  
*Brassica*, rape × *Brassica*, turnip 3303  
*Brassica*, sprouting broccoli × *Brassica*, cabbage × *Brassica*, swede 5585  
*Brassica*, swede × *Brassica*, cabbage 5585  
*Brassica*, swede × *Brassica*, cabbage × *Brassica*, sprouting broccoli 5585  
*Brassica*, swede × *Brassica*, turnip 481, 4320, 7834  
*Brassica*, turnip 871  
*Brassica*, turnip × *Brassica*, rape 3303  
*Brassica*, turnip × *Brassica*, swede 481, 4320, 7834  
*Cannabis* 2318  
*Capsicum* 2452, 7520, 10843, 10969  
*Carica* 7577  
*Cassia* 2455  
 cereals 82, 3881  
 review 75  
*Chenopodium* 6197  
*Cichorium*, chicory × *Cichorium*, endive 10976  
*Cichorium*, endive × *Cichorium*, chicory 10976  
*Citrus* 716  
*Citrus* × *Citrus*, pomelo 6519

**Hybridization, interspecific contd.**

- Citrus*, grapefruit 5453, 9961  
*Citrus*, grapefruit × *Citrus*, mandarin 2505, 5453, 5455, 9964, 9970  
*Citrus*, grapefruit × *Citrus*, orange 9126, 9127, 9964  
*Citrus*, grapefruit × *Citrus*, pomelo 9133  
*Citrus*, lemon 2510, 9961  
*Citrus*, lemon × *Citrus* 2510  
*Citrus*, mandarin 5453, 9961, 9969, 10884  
*Citrus*, mandarin × *Citrus*, grapefruit 2505, 5453, 5455, 9964, 9970  
*Citrus*, mandarin × *Citrus*, orange 5451, 5453  
*Citrus*, mandarin × *Citrus*, pomelo 9964, 9970  
*Citrus*, orange 5453, 9961  
*Citrus*, orange × *Citrus*, grapefruit 9126, 9127, 9964  
*Citrus*, orange × *Citrus*, mandarin 5451, 5453  
*Citrus*, orange × *Citrus*, pomelo 6519, 9964  
*Citrus*, pomelo 5453  
*Citrus*, pomelo × *Citrus* 6519  
*Citrus*, pomelo × *Citrus*, grapefruit 9133  
*Citrus*, pomelo × *Citrus*, mandarin 9964, 9970  
*Citrus*, pomelo × *Citrus*, orange 6519, 9964  
*Coffea* 627, 8352, 8354, 8355, 9048, 9873  
*Corchorus* 7402, 10736  
*Corylus* 10021  
 crop plants, review 8684  
*Cucumis* 2635, 10977  
*Cucumis*, cucumber 882, 6642, 7686, 8533, 8534, 11022  
*Cucumis*, cucumber × *Cucumis*, melon 8534  
*Cucumis*, melon 874, 8534  
*Cucumis*, melon × *Cucumis*, cucumber 8534  
*Cucurbita* 877, 2590, 4631, 11015, 11020  
*Cymbopogon* 2444  
*Daucus* 2587  
*Digitaria* 6231  
*Diplotaxis* 3665  
*Elaeis* 2429, 7499, 8371, 9894  
*Eragrostis* 6232  
*Eucalyptus* 6581, 7632, 8467, 8468, 8470  
*Euchlaena* 9597  
*Fagopyrum* 3202, 8933, 9421  
*Festuca* 415, 4264, 6227, 7256, 7257, 7258, 7260, 9384, 9734  
*Fragaria* 676, 756, 10923  
 fruit crops 6472  
*Glycine* 957, 2809, 4717, 4732, 6754, 7765  
*Gossypium* 530, 531, 532, 533, 534, 1328, 1330, 1331, 1340, 2287, 2290, 2294, 3344, 3346, 3347, 3349, 3350, 3351, 3352, 3353, 3360, 3366, 4372, 4373, 4374, 4376, 4380, 4390, 5282, 5284, 5285, 5303, 6347, 6349, 7378, 7381, 7382, 7385, 7387, 7391, 7392, 8305, 8684, 9808, 9809, 9813, 10708, 10710  
*Helianthus*, Jerusalem artichoke 9070  
*Helianthus*, sunflower 644, 1411, 2422, 2423, 5383, 6442  
*Hevea* 3494  
*Hibiscus* 2322, 2323, 2325, 2329  
*Hordeum* 1045, 2025, 2026, 2027, 2054, 2805, 3097, 4088, 5805, 6082, 6083, 6089, 7097, 8094, 8836, 8837, 8843, 8847, 9605, 10521  
 review 1159  
*Hutera* 3665  
*Ipomoea* 3336, 8301, 9800  
*Juglans* 786, 7618, 9169  
*Lactuca* 5599, 10975  
*Larix* 26, 2583, 5541  
*Lavandula* 10834, 10836, 10839  
*Lolium* 415, 422, 1246, 3221, 5177, 5181, 5722, 6224, 7249, 7251, 8237, 9384  
*Lotus* 475, 5207



**Hybridization, interspecific contd.**

- Lupinus* 1289, 4305, 7307, 8268  
*Lycopersicon* 898, 901, 907, 908, 1557, 2636, 2639, 2640, 2645, 3706, 4641, 4642, 4644, 5631, 6875, 8351, 8550, 8562, 9265, 10078, 10978  
*Malus* 667, 3516, 5431, 9109, 9932, 10863  
*Manihot* 5334, 6395, 7430  
*Medicago* 996, 2212, 2216, 3266, 3267, 8254  
*Mentha* 992, 5715, 6823, 7802, 9339, 11194, 11195, 11196  
*Moricandia* 3665  
*Morus* 2511, 3577, 3578  
*Musa* 762  
*Nicotiana* 591, 592, 593, 600, 605, 1375, 2362, 2367, 2369, 5343, 5348, 5351, 6399, 6401, 6414, 6418, 7443, 7471, 7472, 8332, 8335, 8684, 9859, 9862, 10777, 10786, 10796  
 review 2371  
*Ocimum* 11202  
*Onobrychis* 1288  
*Ornithopus* 5207  
*Oryza* 356, 357, 364, 367, 1206, 1228, 2840, 2843, 2845, 4197, 5761, 5762, 6146, 6147, 8677, 9666  
*Pelargonium* 3834, 8676  
*Pennisetum* 2793, 3135, 4109, 5065, 5066, 6113, 8129, 8874, 10559, 10560, 10563  
*Persea* 7579  
*Phalaris* 6229  
*Phaseolus* 1570, 1636, 3734, 8577, 9291, 10099, 11097, 11099  
*Picea* 8487, 9203  
*Pinus* 807, 1508, 6587, 7636, 8478, 8479, 9192, 10033  
*Pisum* 7782, 11177  
*Poa* 8231, 8232, 8233  
*Populus* 794, 797, 3628, 4583, 5517, 5519, 6573, 6574, 6578, 7629, 9177, 9179, 10029  
*Prunus*, almond 788, 3620, 10873  
*Prunus*, almond × *Prunus*, peach 8455  
*Prunus*, apricot 10873  
*Prunus*, apricot × *Prunus*, cherry 699, 2487  
*Prunus*, apricot × *Prunus*, plum 10877  
*Prunus*, cherry 1427, 3556, 4528, 5412, 6507, 9948, 10873  
*Prunus*, cherry × *Prunus*, apricot 699, 2487  
*Prunus*, cherry × *Prunus*, plum 698  
*Prunus*, peach 3564, 5439, 10873  
*Prunus*, peach × *Prunus*, almond 8455  
*Prunus*, peach × *Prunus*, plum 10874  
*Prunus*, plum 698, 2490, 6503, 9938, 10874  
*Prunus*, plum × *Prunus*, apricot 10877  
*Prunus*, plum × *Prunus*, cherry 698  
*Prunus*, plum × *Prunus*, peach 10874  
*Pyrus* 693, 695, 696, 3498, 4522, 4523, 5433, 9935  
*Quercus* 5515, 6569, 6570, 8459, 10947  
*Raphanus* 840  
*Ribes*, black currant 743, 746, 747, 3500, 5415, 7585, 7588, 9981, 10915  
*Ribes*, black currant × *Ribes*, gooseberry 676, 2523  
*Ribes*, gooseberry 3501  
*Ribes*, gooseberry × *Ribes*, black currant 676, 2523  
*Rosa* 5397  
*Rubus* 6529, 10904  
*Rubus*, blackberry 7583  
*Rubus*, blackberry × *Rubus*, raspberry 6529, 7583, 10905  
*Rubus*, raspberry 2522, 3499, 4549, 5415, 9979, 10906, 10912  
*Rubus*, raspberry × *Rubus*, blackberry 6529, 7583, 10905  
*Saccharum* 5318, 8684  
*Salix* 5529  
*Secale* 1907, 1911, 7996, 8786  
*Solanum* 1483, 2456, 7599, 8288, 8564, 9998, 10845, 10847, 11067  
*Solanum*, egg plant 926, 1483, 1561, 2592, 2657, 4660, 6673, 7727, 8564, 8565, 11068

**Hybridization, interspecific contd.**

- Solanum*, potato 488, 489, 490, 491, 492, 499, 501, 1307, 1308, 2263, 2268, 2269, 3320, 3332, 4336, 4337, 4345, 5268, 6307, 6313, 7316, 7321, 7322, 7323, 7324, 7336, 7338, 7343, 7345, 7358, 7363, 7836, 8280, 8293, 8297, 8684, 8977, 8979, 9772, 9791, 9794, 10687  
*Sorghum* 73, 332, 2083, 3853, 4120, 4135, 5803, 7126, 7135, 10572  
 stone fruits 3556, 9952  
*Swietenia* 1499  
*Trichosanthes* 2633  
*Trifolium* 5207, 7290  
*Trifolium*, Alsike clover 9753, 10670  
*Trifolium*, Alsike clover × *Trifolium*, minor species 1276, 6265  
*Trifolium*, Alsike clover × *Trifolium*, white clover 1276  
*Trifolium*, minor species 10670  
*Trifolium*, minor species × *Trifolium*, Alsike clover 1276, 6265  
*Trifolium*, minor species × *Trifolium*, white clover 1276  
*Trifolium*, white clover × *Trifolium*, Alsike clover 1276  
*Trifolium*, white clover × *Trifolium*, minor species 1276  
*Triticum* 107, 109, 119, 120, 121, 127, 169, 176, 199, 1067, 1771, 1780, 1813, 2892, 2903, 2904, 2918, 2932, 3877, 3911, 3915, 4836, 4849, 4852, 4861, 4870, 4873, 4917, 5845, 5862, 5867, 6865, 6917, 6920, 6937, 6943, 7902, 7903, 7904, 7905, 7909, 7919, 7954, 7955, 7960, 8684, 8719, 8742, 9448, 9449, 9466, 9501, 10295, 10298, 10304, 10346, 10368, 10394  
*Ulmus* 4586  
*Vaccinium* 8427, 9985  
*Valeriana* 7526  
*Vicia*, vetch 3289  
*Vigna*, cowpea 9408  
*Vigna*, minor species 1644, 6744, 10119  
*Vitis* 769, 781, 1493, 3610, 3615, 4570, 4573, 5503, 6542, 6549, 6557, 7610, 8441, 8453, 9167  
**Hybridization, interspecific, technique,**  
*Gossypium* 3348  
**Hybridization, technique**  
*Avena* 9505  
 crop plants 6862  
*Medicago* 8953  
*Oryza* 4207  
*Phaseolus* 5650  
*Sorghum* 8143  
*Zea*, maize 10442  
**Hybridization, wide**  
 crop plants 126, 1675, 6865  
 fruit crops 6865, 10852  
*Prunus*, plum 706, 7562  
*Secale*, review 4002  
*Triticum* 134  
*Hydrellia*, *Oryza* 6193, 8155  
**Hydroponics, Lycopersicon** 9279  
**Hylemya, technique, Phaseolus** 8590  
*Hymenula*, *Triticum* 5917, 5918, 5919, 10373  
*Hyoscyamus*  
 anther culture 661  
 lethals, technique 6830  
 mutation, induced 6830  
*Hypera*, *Medicago* 4290  
*Hypera*, technique, *Medicago* 2230  
**Hypostasis (see Gene interaction)**  
*Hypoxylon*, *Populus* 3627, 9180  
**Idotype**  
*Glycine* 11128  
*Helianthus*, sunflower 9889  
*Linum* 9015  
*Triticum* 10269, 10272, 10314  
**Idiogram (see Chromosomes, morphology)**  
**Immunology**  
*Agropyron* 8949  
*Brassica*, cabbage 1537  
*Brassica*, kale 1537  
 crop plants 3871  
*Erwinia* 507  
*Hordeum* 7095  
*Mangifera* 2514  
*Pinus* 9195  
*Triticum* 7903

**Immunology contd.**

- Vicia*, broad bean 3725  
**Inbreeding** 10, 2778, 2779, 2803, 3813, 4786, 10202  
*Anthoxanthum* 3234  
*Beta*, sugar beet 7420, 7426  
*Brassica*, swede 7834  
*Coriandrum* 7803  
 crop plants 42, 5777, 9401  
 book 2811  
*Cucumis*, cucumber 7691  
*Daucus* 5547  
*Digitalis* 9913  
*Eucalyptus* 800  
*Festuca* 10643  
*Fragaria* 1479, 9146, 10924  
*Glycine* 5688  
*Gossypium* 1328  
*Helianthus*, sunflower 636  
*Juglans* 8454  
*Lavandula* 10833  
*Lolium* 422, 8239, 8241, 10632  
*Lotus* 4308  
*Malus* 3505, 7540  
*Medicago* 449, 1264, 2215, 3251, 3259, 4279, 10651  
*Nicotiana* 582, 584, 3423, 4439, 7431  
*Pennisetum* 8672  
*Pinus* 10036  
*Pyrus* 8395  
*Raphanus* 1524, 2588, 10971  
*Rosa* 10837  
*Rubus*, raspberry 5467  
*Saccharum* 7411  
*Secale* 48, 7018, 7997, 8001  
*Secale* × *Triticum*, triticale 6995  
*Solanum*, potato 2811, 4345  
*Trachyspermum* 2769  
*Trichloris* 5205  
*Trifolium*, red clover 3280, 5226, 9755  
*Vicia*, broad bean 27, 48, 940, 2680, 10091  
*Zea*, maize 255, 261, 275, 1123, 2811, 3024, 3046, 3083, 7020, 8046, 8824, 8825, 9524  
**Incompatibility (see Sterility and fertility)**  
**Increment**  
*Betula* 6580  
*Larix* 5542  
*Picea* 806, 813, 814, 2575  
*Pinus* 806, 810, 2575, 2577, 5533, 5534, 7636, 9189, 9190, 10035  
*Populus* 794, 2566, 2568, 2569, 6571, 9177, 10027  
*Prunus*, cherry 9946  
*Pseudotsuga* 819  
*Quercus* 8459, 10024, 10947  
**Inflorescence**  
*Agropyron* × *Triticum* 122, 154  
*Avena* 227  
 cereals, review 1706  
*Cuphea* 4491  
*Elaeis* 2431  
*Eleusine* 2074, 10566  
*Eragrostis* 9738  
*Fagopyrum* 8928, 9716  
*Festuca* 10641  
*Fragaria* 7594  
*Helianthus*, sunflower 9884  
*Hordeum* 1149, 2048, 5026, 5031, 6068, 8087, 8855, 10542  
*Lens* 10184  
*Lolium* 3221  
*Medicago* 3265  
*Olea* 4480  
*Oryza* 1217, 2142, 4210, 6146  
*Panicum* 5062, 8873  
*Phaseolus* 8578  
*Piper* 31, 2449  
*Ricinus* 1407, 9061  
*Sorghum* 2081, 4158, 4160, 9641  
*Tripsacum* 2015  
*Triticum* 119, 169, 176, 186, 1707, 1785, 1795, 2912, 4861, 5845, 5858, 6896, 6946, 7926, 8736, 8764, 10302  
*Vicia*, broad bean 4681  
*Vitis* 8441  
*Zea*, maize 1929, 1959, 6036, 7034, 8030, 9571, 10427, 10484  
**Inflorescence, colour**  
*Amaranthus* 6199  
*Brassica*, cauliflower 1542, 2614  
*Hordeum* 10544



**Inflorescence, colour contd.***Triticum* 127, 9448**Inflorescence, length***Euchlaena* 9595*Hordeum* 8838*Panicum* 8873*Triticum* 8727, 8730*Zea, maize* 9595*Zea, sweet corn* 9595, 9596**Inflorescence, number***Avena* 3993, 5964*Betula* 9184*Cajanus* 1608*Carthamus* 2425*Euchlaena* × *Zea, maize* 9545*Festuca* 5191*Hordeum* 3131, 8113, 8852*Humulus* 5367*Lolium* 10632*Medicago* 8251*Oryza* 7207*Setaria* 10557*Tripsacum* × *Zea, maize* 4019*Triticum* 1759, 5859, 8740, 10316*Vigna, minor species* 7756*Zea, maize* 262, 1124, 1930, 1949, 1981,

1987, 3024, 3025, 3052, 5982, 6003,

6021, 7024, 7036, 8013, 8049, 9522

**Inflorescence, shape***Chenopodium* 6200*Eleusine* 9636*Helianthus, sunflower* 5377*Oryza* 1216*Secale* × *Triticum, tritcale* 221, 222*Triticum* 127, 2920, 6902, 6916**Inflorescence, size***Dactylis* 8226*Helianthus, sunflower* 7491*Hordeum* 3112, 3879, 8087*Lactuca* 3687*Morus* 7569*Secale* × *Triticum, tritcale* 1892*Sorghum* 2794, 4118*Trifolium, red clover* 9754*Triticum* 128, 162, 1792, 2906, 2922,

3898, 7888

*Zea, maize* 261, 262, 9564*Zea, sweet corn* 8066**Inflorescence, weight***Avena* 3004*Festuca* 5191*Panicum* 3132*Pennisetum* 324*Triticum* 3933*Zea, maize* 7036**Infrared rays***Gossypium* 3371*Sorghum* 5076**Inheritance (see Genetics)****Inhibitors***Lolium* 5187*Oryza* 2166*Phaseolus* 11100*Sorghum* 2081, 5077

awns 8882

spikelets 8882

*Triticum* 2884

meiosis 10307

*Zea, maize, alcohol dehydrogenase*

10440

*Zizania, anthocyanins* 10623**Insects***Arachis* 2795*Brassica, cabbage* 5590*Brassica, red cabbage* 5590*Carya, review* 9171

crop plants 9403, 9418, 9419

book 2774, 7858

review 9413

symposium 7857

*Gossypium* 531, 532, 1351, 2800, 4814,

7368, 9822

review 10726

*Lolium* 6223*Lycopersicon* 2654, 11064*Manihot* 4424, 6393*Oryza* 6158, 8898*Solanum, potato* 5267*Sorghum* 4172, 8149, 8150

review 8144

*Trifolium, red clover* 6259*Trifolium, white clover* 6259*Triticum* 10393**Insects contd.***Zea, maize* 6067**Insects, technique**

cereals 1725

*Gossypium* 5307*Medicago* 2230*Sorghum, review* 8145**Interchange (see Chromosome translocation)****Interference** 1627**Intergeneric hybridization (see**

Hybridization, intergeneric)

**Internode***Avena* 3002, 3879*Cicer* 2748*Glycine* 4736*Hordeum* 2039, 3879*Oryza* 5105*Secale* 5975, 8786*Sorghum* 6129*Triticum* 6933*Vitis* 9164*Zea, maize* 6036**Internode, colour***Lablab* 8650*Oryza* 9691**Internode, length***Camellia* 9870*Cucumis, cucumber* 8531*Hordeum* 8856*Nicotiana* 9035, 10786*Oryza* 9690*Panicum* 8873*Triticum* 7891**Internode, number***Aegilops* × *Triticum* 109*Brassica, Brussels sprouts* 3685*Cucumis, cucumber* 8531*Glycine* 2720*Hordeum* 4077, 8067*Oryza* 2139*Triticum* 109, 6933, 7936*Zea, maize* 6035**Internode, size***Aegilops* × *Triticum* 109*Arachis* 1414*Cucumis, melon* 5601*Glycine* 2725*Gossypium* 5310*Hordeum* 2042*Lycopersicon* 923, 2642*Malus* 2473, 4511*Oryza* 2139, 2163, 5129, 6150*Pisum* 974*Ricinus* 6440*Solanum, potato* 6311*Triticum* 109, 2884, 2927, 2928, 3924,

7936

*Vicia, broad bean* 7734*Zea, maize* 3067, 5004**Interspecific hybridization (see**

Hybridization, interspecific)

**Introduction, plant (see Plant introduction)****Inula, chemicals, as plant constituents, oil,**

essential 10838

**Inversion (see Chromosome translocation)****Ipomoea**

anther culture 523

breeding

Nigeria 2250

S. Korea 4802

centres of origin or diversity 2283, 3336

chemicals, as plant constituents

ascorbic acid 4362

caffeoylquinic acid esters 1324

chlorogenic acid 1325

esterase 3337

isochlorogenic acid 1325

peroxidase 3336

phenols 4362

phenols, technique 1324, 1325

polyphenol oxidase 4362

protein 4361

trypsin inhibitor 4361

*Cylas* 1633, 1641, 5276, 9801*Cylas, technique* 4366

flooding 4363

flowering 521

*Fusarium* 8299*Fusarium, technique* 1326

genetics, sterility, self 5271

genome analysis 8301

germination 521

germplasm banks 7843

**Ipomoea contd.**

germplasm banks contd.

Taiwan 1664, 3849

growth period 522, 2282, 7364

hard core 7365

history and evolution 7850, 8301

hybridization, interspecific 3336, 8301,

9800

*Meloidogyne* 4820, 8299

migration 2283

mixtures of crops or genotypes 7850

multiple alleles 5271

mutation 4364

nematodes 4364, 4365

physiological races 4365

pathology 1296

photosynthesis 5273

*Pleospora* 4802

polyploidy 7850, 8301

protoplasts 2284

quality 10701

quality, for cooking 2282, 4362

quality, for storage 522, 2282, 5275,

7364

respiration 5275

*Rhizopus* 4802

root, number 521

root, size 521

root, weight 521

seed, number 521

selection, artificial 521

sowing and planting date 524, 7364

sterility and fertility 2283

sterility, self 5271, 9800

*Streptomyces* 8299

succession, crop 8300

taxonomy 8301

temperature, effect of 4820, 5275

translocation, physiological 5272

tuber 10701

tuber, colour 2282

varieties

Nigeria 9799

Sierra Leone 1633

USA 8299

varieties, classification 3336, 3337

variety trials, Cuba 9798

vegetative reproduction 5274

viruses 8299

yield components 5272

**Irrigation***Coffea* 4450*Gossypium* 6355*Lolium* 7252*Medicago* 67, 438*Nicotiana* 4443, 7462*Oryza* 3190, 4213, 8896*Secale* × *Triticum, tritcale* 1753, 1892*Sorghum* 1191, 4155, 7168, 7169*Triticum* 152, 1081, 1753, 4862, 6912,

7952

*Vitis* 4572*Zea, maize* 67, 282, 8056**Jerusalem artichoke (see Helianthus,**

Jerusalem artichoke)

**Job's tears (see Coix)****Juglans**

bark, colour 786

breeding

Ukrainian SSR 3617

USSR 7617

chemicals, as plant constituents

carbohydrates 10017

oil, fatty 785, 10017

phospholipids 4576

protein 785, 10017

cold resistance 2557, 4576, 6559, 9169

*Conotrachelus* 9170

development and growth 7618

experimental designs 8454

fruit, size 3618, 5505

fruit, weight 3618, 5505

fruiting, biennial or irregular 10018

genetic resources 10849

geographical races 6559

germination 2556

*Gnomonia* 786

heat and drought resistance 9169

height 786, 10018

hermaphroditism 10018

heterosis 7618

hybridization, interspecific 786, 7618,

9169



**Juglans** *contd.*

- inbreeding 8454
  - leaf 786
  - leaf, colour 786
  - Nycteola* 786
  - pollination 10018
  - polyembryony and twinning 5782
  - provenance trials, USA 6559
  - seasonal growth 786
  - seed 2556
  - varieties
    - Greece 6476
    - Italy 6477
    - Kirgiz SSR 6560
    - USA 4575
  - variety trials, USA 2555
  - yield components 5506
- Juice, quality** (see Quality, of juice)
- Jujube** (see *Zizyphus*)
- Juniper** (see *Juniperus*)
- Juniperus***, chromosomes, number 6597
- Jute** (see *Corchorus*)
- Kabatiella***
- Trifolium*, red clover 1282, 2236, 6260
  - Trifolium*, subterranean clover 3287, 6268, 7299
- Zea***, maize 3075, 10500
- Kaki** (see *Diospyros*)
- Kale** (see *Brassica*, kale)
- Keeping quality** (see Quality, for storage)
- Keifera***, *Lycopersicon* 2653
- Kenaf** (see *Hibiscus*)
- Khuskia***
- Euchlaena* × *Zea*, maize 9545
  - Sorghum* 1193
- Kidney bean** (see *Phaseolus*)
- Kidney vetch** (see *Anthyllis*)
- Klebsiella***
- crop plants 9395
  - genetics, nitrogen fixation 9395
  - Glycine*, nitrogen fixation 11120
  - nitrogen fixation 9395, 11120
- Kochia***
- chemicals, general effects, ethyl methanesulphonate 478
  - development and growth 478
  - γ rays 478
  - germination 478
  - pollen, size 478
  - sterility and fertility 478
  - variety trials, Kazakh SSR 7310
- Kohl rabi** (see *Brassica*, kohl rabi)
- Kola** (see *Cola*)
- Kumquat** (see *Fortunella*)
- Lablab***
- breeding, India 988
  - chemicals, as plant constituents
    - nucleic acids 5641
    - protein 6812
  - chemicals, mutagenic effects
    - N*-methyl-*N*-nitro-*N*-nitrosoguanidine 989
    - N*-nitroso-*N*-methylurea 989
  - combining ability, leaf, size 7797
  - flower, colour 8650
  - fruit, colour 8650
  - fruit, length 10185
  - fruit, number 10185
  - fruit, shape 8650
  - fruit, size 2759
  - γ rays 989
  - genetic variance 6812
    - leaf, size 7797
    - yield components 9336
  - genetics
    - flower, colour 8650
    - fruit, colour 8650
    - fruit shape 8650
    - internode, colour 8650
    - seed, colour 8650
  - growth period 989
  - heritability 2759
    - yield components 9336, 11193
  - heterosis, leaf, size 7797
  - internode, colour 8650
  - leaf, size 7797
  - mutation, induced 989
  - photoperiodism 988
  - quality, for cooking 988, 2761
  - seed, colour 8650
  - seed, number 2759, 10185
  - seed, size 2761
  - seed, weight 989, 2761

***Lablab*** *contd.*

- selection, artificial 10185
  - varieties, India 988
  - Xanthomonas* 7800
  - yield components 2759, 6812, 9336, 10185, 11193
- Lablab* × *Macrotyloma***
- chemicals, fertility and sex, effects, ε-aminocaproic acid 9408
  - embryo culture 9408
  - hybridization, intergeneric 9408
- Lablab* × *Phaseolus***, hybridization, intergeneric 4677
- Lactuca***
- bolting 11000
- Bremia*** 827, 5795, 6628
- physiological races 3690, 6627, 10063
  - Czechoslovakia 1546, 3689, 3691, 4625
  - German Federal Republic 10975
  - Netherlands 10975
  - UK 9246, 9247, 9248, 10060, 10061, 10062, 10975
- chemicals, as plant constituents, nitrate 5597
  - chemicals, fertility and sex, effects
    - daminozide 10975
    - GA 10975
  - cytoplasmic inheritance 2596
  - development and growth 10975
  - dormancy 7677, 10975
  - fasciation 6626, 10975
  - genetic variance 6626
  - genetics
    - Bremia* 1546, 3690, 4625, 6627, 6628
    - dormancy 7677
    - nitrate 5597
    - Pemphigus* 6628
  - glass and plastic, cultivation under 4623, 8520
  - heritability 6626, 7677
  - heterosis 1516
  - hybridization, interspecific 5599, 10975
  - inflorescence, size 3687
  - light, effect of 10975
  - linkage 3690, 6628
  - Macrosiphum* 6631
  - mutation, induced 10981
  - Myzus* 7678, 10975
  - Nasonovia* 6631, 10975
  - Pemphigus* 6628, 6629, 6630, 6631
  - photoperiodism 11000
  - photosynthesis 5598
  - pollen, size 3687
  - polyploidy 3687, 10975
  - Pseudomonas* 8521
  - respiration 5598
  - Sclerotinia* 4624
  - seed, size 3687
  - seed, weight 3687
  - sterility, male 10975
  - stomata 3687
  - stomata, number 10975
  - tip burn 3688
  - tissue culture 2596
  - varieties
    - UK 9246, 9247, 9248, 10059, 10060, 10061, 10062
    - USA 5595, 5596
  - variety trials
    - UK 10999
    - Ukrainian SSR 5594, 7676
  - viruses 4626, 9247
  - physiological races, USA 5599
- Lagenaria***
- genetics 2620
  - history and evolution 3705
  - taxonomy 3705
  - varieties 3705
- Laminaria***
- heterosis 4771
  - mutation 4771
  - sex 4771
  - tissue culture 4771
- Land races**
- Hordeum* 305, 7099
  - Psophocarpus* 8626
  - Triticum* 7888
  - Vicia*, broad bean 2669
  - Zea*, maize 1116, 10431
- Laodelphax***, *Oryza* 3199
- Larch** (see *Larix*)

***Larix***

- breeding, Ukrainian SSR 7647
  - chemicals, as plant constituents
    - ascorbic acid 5542
    - flavonoids 6594
    - vitexin 6594
  - chemicals, general effects
    - fluoride, hydrogen 3648
    - ozone 3648
    - sulphur dioxide 3648
  - chromosomes, morphology 5531
  - cone 2583
  - dormancy 5542
  - genotype × environmental interaction 7648
  - geographical races 5542
  - Guignardia* 6594
  - heritability 7651
  - hybridization, interspecific 26, 2583, 5541
  - increment 5542
  - Mycosphaerella* 7649, 7650, 7651, 8490
  - pollution, atmospheric 3648
  - provenance trials
    - Europe 7648
    - Kazakh SSR 8474
    - Poland 9206
  - quality, of timber 26
  - taxonomy 5541
  - variation 2583
- Laser beams**
- Allium*, minor species 10992, 10993
  - Beta*, sugar beet 575, 9029, 10766
  - Cucumis*, cucumber 886
  - Lycopersicon* 892, 904
  - Malus* 10860
  - Populus* 794
  - Ribes*, black currant 10915
  - Secale* 10396
  - Secale* × *Triticum*, triticales 10396
  - Tripsacum* × *Zea*, maize 10444
  - Triticum* 10333, 10334, 10396
  - Zea*, maize 10478
- Lasioderma***
- Nicotiana* 6420
  - Secale* × *Triticum*, triticales 5954
- Lateness** (see Growth period; Seasonal growth)
- Lathyrus***
- annual habit 1293
  - chemicals, as plant constituents
    - alkaloids 7731
    - heterochromatin 1293
    - legumin 8951
    - nucleic acids 5722
    - β-*N*-oxalylaminoalanine 1295, 8960
    - pisatin 2663
    - protein 8951, 8952, 8960
  - chemicals, mutagenic effects
    - ethyl methanesulphonate 1295
    - methyl ethanesulphonate 8961, 8962
    - mitomycin C 1295
  - chromosomes, accessory 1293
  - chromosomes, morphology 1293
  - chromosomes, number 9744
  - fruit, number 9764
  - γ rays 1295, 8961, 8962
  - genetics, seed, colour 8961
  - growth period 9765
  - habit 9764
  - history and evolution 1293
  - mutation, induced 1295, 7731, 8961
    - seed, colour 8961
    - sterility, male 8962
  - perennial habit 1293
  - quality, for milling and baking 3299
  - root, length 9765
  - seed, colour 8961
  - seed, number 9764
  - seed, weight 9764
  - stability 8960
  - sterility, male 8962
  - taxonomy 8952
  - X rays 1295
  - yield components 9764
- Lavandula***
- chemicals, as plant constituents, oil, essential 2447, 10833, 10834, 10836
  - heat and drought resistance 10839
  - hybridization, interspecific 10834, 10836, 10839
  - inbreeding 10833
  - luminescence 10839



**Lavandula contd.**

polyploidy 6462, 10834, 10836, 10839  
sterility and fertility 10833

**Lavender (see Lavandula)****Lawns and sports turf**

*Agrostis* 2185, 7226, 8228  
*Festuca* 2185, 7226, 8228  
grasses 7237  
*Lolium* 7226, 7245, 7246, 8228, 8236, 8240  
*Phleum* 7824  
*Poa* 416, 2185, 2188, 5164, 5167, 6205, 7226, 7824, 8228, 8230, 8234, 8936, 8938  
*Stenotaphrum* 5203, 10648

**Layouts (see Experimental designs)****Leaf**

*Abies* 7646  
*Agrostis* 4240  
*Allium*, chives 10053  
*Brassica* 1533, 1535  
*Brassica*, rape 1395  
*Cajanus* 11191  
*Camellia* 5358, 6421, 9046  
*Citrus*, lemon 2503  
*Citrus*, mandarin 2503  
*Citrus*, orange 2503  
*Crataegus* 10872  
*Cucumis*, cucumber 888  
*Cynara*, globe artichoke 8567  
*Fagus* 5522  
*Festuca* 4240  
*Glycine* 1587, 1589  
*Gossypium* 2300, 5296, 9802, 10717, 10729  
*Helianthus*, sunflower 639  
*Hevea* 2460  
*Hibiscus* 2322  
*Humulus* 5369  
*Juglans* 786  
*Leucaena* 9188  
*Macroptilium* 3724  
*Malus* 5432, 6487  
*Nicotiana* 1374, 3439, 4442, 5341  
*Olea* 4480  
*Oryza* 2124, 9688  
*Papaver* 1389  
*Phaseolus* 6709, 9292  
*Pinus* 6584  
*Pisum* 1600, 3839, 5704, 8620  
*Poa* 6206  
*Populus* 6575  
*Quercus* 1500, 3624, 6570  
*Raphanus* 3654  
*Ribes*, black currant 2524  
*Rubus* 2519  
*Sorghum* 2081, 2089, 5077, 8136, 8885  
*Theobroma* 29  
*Trichosanthes* 2633  
*Triticum* 151, 1712, 1715, 2850, 4867, 5873  
*Vigna*, cowpea 3724  
*Vitis* 4568  
*Zea*, maize 6054, 9521, 9536

**Leaf, anatomy**

*Acca* 1486  
*Aegilops* 9496  
*Agropyron* 4242  
*Betula* 5525  
*Bromus* 4242  
*Dactylis* 5168  
*Festuca* 4242  
*Gossypium* 7388  
*Lupinus* 7304  
*Medicago* 3265  
*Pennisetum* 7122  
*Pinus* 1508  
*Populus* 6573, 6575  
*Prunus*, almond 788  
*Prunus*, cherry 2496, 6507  
*Salix* 5529  
*Solanum*, potato 2264  
*Triticum* 1750, 6929

**Leaf burn, *Pyrus* 10871****Leaf, colour**

*Acer* 804  
*Apium* × *Petroselinum* 11002  
*Camellia* 2391, 2393, 9046  
*Cicer* 2747  
*Citrus*, lemon 9956  
*Cocos* 35  
*Dactylis* 8939  
*Daucus* 5546

**Leaf, colour contd.**

*Fagopyrum* 4229  
*Glycine* 5689  
*Gossypium* 7377  
*Hibiscus* 9019  
*Hordeum* 8865, 10544  
*Juglans* 786  
*Lycopersicon* 1517  
*Malus* 682, 3506  
*Manihot* 4425  
*Nicotiana* 2380, 5344, 7445  
*Oryza* 356, 2121, 3176, 7187, 7210, 9691  
*Pisum* 5702  
*Poa* 8230  
*Prunus*, peach 8412  
*Secale* 8002  
*Sorghum* 2081, 4150, 5088, 8880, 9644  
*Triticum* 1107  
*Zea*, maize 1984, 4033

**Leaf distortion, *Lycopersicon* 916****Leaf fall, *Gossypium* 536, 3340, 9808****Leaf, length**

*Hordeum* 10542  
*Lolium* 7249  
*Triticum* 7934

**Leaf, number**

*Ananas* 2533  
*Daucus* 5548, 10985  
*Glycine* 2735  
*Gossypium* 5310  
*Hordeum* 4093  
*Malus* 6485  
*Morus* 6521  
*Nicotiana* 1379, 4436, 4439, 5347, 7457, 10787  
*Oryza* 4210, 8168  
*Papaver* 10806  
*Pisum* 7783  
*Secale* 9514  
*Trifolium*, red clover 1278, 10671  
*Triticum* 6927, 6947, 8750, 10313  
*Vigna*, cowpea 5666  
*Zea*, maize 259, 3046, 4047

**Leaf, number of parts**

*Canavalia* 991  
*Citrus*, grapefruit × *Poncirus* 726  
*Citrus*, lemon × *Poncirus* 726  
*Citrus*, mandarin × *Poncirus* 726  
*Citrus*, orange × *Poncirus* 726  
*Citrus*, pomelo × *Poncirus* 726  
*Citrus* × *Poncirus* 1458  
*Fortunella* × *Poncirus* 726  
*Glycine* 4736  
*Lotus* 472

**Leaf, senescence**

*Avena* 9510  
*Nicotiana* 7445

**Leaf, shape**

*Acer* 9187  
*Alnus* 8466  
*Amaranthus* 1564  
*Brassica*, oil crops 5371  
*Cajanus* 4760, 10186  
*Camellia* 2393  
*Chenopodium* 6200  
*Cicer* 2748  
*Citrus* 6517  
*Citrus*, grapefruit × *Poncirus* 717  
*Citrus*, mandarin × *Poncirus* 717  
*Citrus*, pomelo × *Poncirus* 717  
*Corchorus* 9018  
*Corylus* 10021  
*Crataegus* 3542  
*Cucumis*, cucumber 11028  
*Glycine* 4736, 10139, 11154  
*Gossypium* 539, 1343, 2807, 3358, 4373, 6350, 6356, 9808, 10717  
*Hordeum* 8852  
*Lens* 4759  
*Lycopersicon* 2642, 8548  
*Morus* 1465, 6521  
*Nicotiana* 4436  
*Oryza* 7187, 9667  
*Phaseolus* 8575  
*Poa* 8937  
*Prunus*, cherry 2495  
*Psophocarpus* 5714  
*Pyrus* 695, 4524, 5434  
*Secale* 10419  
*Secale* × *Triticum*, triticales 222  
*Solanum*, potato 2262  
*Trifolium*, red clover 1278

**Leaf, shape contd.**

*Trifolium*, white clover 2237  
*Vaccinium* 3594  
*Vicia*, broad bean 2681  
*Vicia*, vetch 464, 1287  
*Vitis* 1492  
*Zea*, maize 8029

**Leaf, size**

*Acer* 9187  
*Aegilops* × *Triticum* 10308  
*Alnus* 8466  
*Arachis* 1414  
*Avena* 9510  
*Beta*, sugar beet 4416, 6380  
*Cajanus* 6816, 6817, 7798  
*Camellia* 624, 2391, 2393, 9046, 9870  
*Cicer* 2748  
*Citrus*, grapefruit 718  
*Citrus*, lemon 718  
*Citrus*, lime 718  
*Citrus*, mandarin 718  
*Citrus*, orange 718  
*Citrus*, pomelo 718  
*Cocos* 10895  
*Corchorus* 8317  
*Cucumis*, cucumber 11024  
*Dactylis* 8226  
*Daucus* 5548, 10985  
*Festuca* 8242  
*Glycine* 1587, 2720, 2725, 2735, 4721, 5638  
*Gossypium* 1343  
*Hippophae* 4560  
*Lablab* 7797  
*Lolium* 2196  
*Lycopersicon* 2642, 2648, 6654  
*Morus* 734, 3579, 9137  
*Nicotiana* 1379, 9035, 9863, 10786  
*Oryza* 2846, 4203  
*Papaver* 10806  
*Pinus* 3634, 5533  
*Prunus*, cherry 2495  
*Psophocarpus* 8633, 11190  
*Secale* × *Triticum*, triticales 221, 1753  
*Solanum*, potato 2264  
*Spinacia* 872  
*Trifolium*, red clover 5228, 9754  
*Trifolium*, white clover 7298, 8262  
*Tripsacum* 2015  
*Triticum* 128, 1101, 1107, 1713, 1753, 2804, 3898, 3933, 5870, 6927, 6929, 10313  
*Vaccinium* 3594  
*Vicia*, broad bean 2681  
*Vicia*, vetch 1287  
*Vigna*, cowpea 4699, 5638, 6737  
*Zea*, maize 1124, 4047

**Leaf, size, technique**

*Gossypium* 1347  
*Helianthus*, sunflower 5382  
*Pennisetum* 2071

**Leaf, texture**

*Brassica*, cauliflower 3684  
*Bromus* 9728  
*Gossypium* 5287  
*Pisum* 6788  
*Sorghum* 5088

**Leaf, weight**

*Beta*, sugar beet 4415  
*Brassica*, cabbage 5581  
*Brassica*, red cabbage 5581  
*Daucus* 10985  
*Glycine* 2735, 5638  
*Gossypium* 1343  
*Lolium* 5184  
*Morus* 3579  
*Nicotiana* 7450  
*Oryza* 368, 369, 5763  
*Picea* 806  
*Pinus* 806  
*Vigna*, cowpea 5638  
*Vigna*, minor species 4707

**Leek (see Allium, leek)****Legislation**

crop plants 44, 3844, 5773, 7840  
*Glycine* 11129

**Leguminosae**

chemicals, as plant constituents  
albumin 10090  
protein 10090  
chromosomes, number 432  
taxonomy 10090  
variation 10090



**Leguminous forage crops**

- breeding
  - Czechoslovakia 1255
  - Norway 1011
  - Sweden 1011
  - Switzerland 5152
  - symposium 4235
  - USSR 43, 7225
- genetic resources 2182
- genetics, *Rhizobium*, review 6241
- germplasm banks
  - Hungary 2181
  - Poland 1663
- nitrogen fixation, review 6241
- quality, symposium 7236
- Rhizobium* 8688
- tissue culture 8688
- Lemon** (see *Citrus*, lemon)
- Lens**
  - breeding 4670
  - Sudan 4665
  - breeding, technique 11189
  - chemicals, as plant constituents
    - amylose 2754
    - legumin 8951
    - protein 2754, 8951, 8952
    - starch 2754
    - wyerone 2663
  - chemicals, cytological effects
    - ethyl methanesulphonate 1607
    - methyl ethanesulphonate 1607
    - methyl methanesulphonate 1607
  - chemicals, general effects
    - barban 8623
    - diclofop-methyl 8623
    - difenzoquat 8623
    - metribuzin 8623
  - chemicals, mutagenic effects, *N*-nitroso-*N*-methylurea 4759, 10184
  - chromosome translocation 1607
  - chromosomes, aberrations 1607, 4759
  - development and growth 11189
  - flower, colour 2755
  - $\gamma$  rays 4759, 9333
  - genetic resources 4670
  - genetic variance
    - height 11189
    - yield components 11189
  - genetics
    - flower, colour 2755
    - habit 10184
    - inflorescence 10184
    - leaf, shape 4759
    - seed, colour 5712
    - seedlings, colour 2755
    - sterility and fertility 10184
  - habit 10184
  - heat and drought resistance 4671
  - height 11189
  - heritability, yield components 9335
  - inflorescence 10184
  - leaf, shape 4759
  - multivariate analysis 9334
  - mutation, induced 4759, 9333
    - habit 10184
    - inflorescence 10184
    - sterility and fertility 10184
  - photoperiodism 4671
  - photosynthesis 4671
  - physiological races, India 4679
  - Pythium* 7796
  - Rhizobium* 4672
  - salinity 4671
  - seed, colour 5712
  - seed, size 7796
  - seedlings, colour 2755
  - selection, artificial 9335, 11189
  - selection, natural 11189
  - stability 4670
  - sterility and fertility 10184
  - taxonomy 8952
  - varieties, Canada 2754
  - vernalization 4671
  - viruses 7796
  - yield components 9334, 9335, 11189
- Lentil** (see *Lens*)
- Lentinus**, *Quercus* 6563
- Lepidium**, chemicals, as plant constituents, sinapine, technique 10232
- Leptinotarsa**
  - Nicotiana* 5355
  - Solanum*, potato 7359, 7360, 8297
- Leptispa**, *Oryza* 8217

- Leptocoris**, *Sorghum* 4160
- Leptosphaeria**
  - Avena* 1904, 5968
  - Brassica* 5575
  - Brassica*, cabbage 828
  - Brassica*, oil crops 5576, 9056
  - Brassica*, rape 1404, 3465, 5576, 5577, 6436, 6437, 9056
  - chemicals, as plant constituents, mellein 3960
  - Daucus* 9208
  - Hordeum* 7112
  - Oryza* 8202
  - Rubus*, raspberry 2522, 10905
  - Triticum* 3891, 3960, 3964, 3966, 4887, 5823, 5920, 5924, 10368, 10371, 10372, 10374
  - physiological races, USA 5922, 10367
  - variation 3960
- Leptosphaeria**, technique
  - Brassica* 3677, 5580
  - Brassica*, rape 3677, 5580
- Leptotrochila**, *Medicago* 454
- Lespedeza**
  - chromosomes, aberrations 9758
  - corolla 9758
  - flower 469
  - gene interaction 469
  - genetics
    - corolla 9758
    - flower 469
  - habit 10677
  - linkage 469
  - Meloidogyne* 468
  - mutation 469
  - mutation, induced 7846
  - corolla 9758
  - pollination 9758
  - soil stabilization 10677
  - synthetic varieties 468
  - varieties 7846
  - USA 468, 10677
- Lethals**
  - Cucumis*, melon 11006
  - Hordeum* 7091, 10536
  - Oryza* 9682
  - Phaseolus* 6713
  - Sorghum* 4130
  - Zea*, maize 1985, 4016, 6007, 6008
- Lethals**, technique 6830
  - Hyoscyamus* 6830
- Lettuce** (see *Lactuca*)
- Leucaena**
  - breeding 7633
  - Camptomeris* 3633
  - forage 7633
  - leaf 9188
  - seedlings 9188
- Leucinodes**, *Solanum*, egg plant 929, 2657, 4660, 8565
- Leveillula**
  - Lycopersicon* 5631
  - Solanum*, potato 8985
- Light**, effect of
  - Beta*, sugar beet 575
  - Bromus* 6217
  - crop plants 3820
  - symposium 70
  - Cucumis*, cucumber 3700, 10977
  - Dactylis* 5151, 5157
  - Fragaria* 7593, 10850
  - Glycine* 3756, 4726
  - Gossypium* 4372
  - Hordeum* 1711, 5057, 10542
  - Lactuca* 10975
  - Linum* 9016
  - Lolium* 5151, 5157
  - Lycopersicon* 906
  - Medicago* 3245
  - Nicotiana* 601, 5344, 5345, 6408
  - Oryza* 2129, 9671
  - Papaver* 9877, 9878
  - Phaseolus* 8579, 10099, 11096
  - Poa* 8232, 8233
  - Populus* 794
  - Raphanus* 5554
  - Ribes*, black currant 10850
  - Saccharum* 4405
  - Secale* 3012
  - Secale*  $\times$  *Triticum*, tritcale 3989
  - Solanum* 7603
  - Solanum*, potato 10693
  - Sorghum* 336, 5076

**Light**, effect of *contd.*

- Trifolium*, minor species 4297
- Trifolium*, subterranean clover 4297
- Triticum* 139, 163, 200, 1711, 1712, 2913, 3938, 4871, 10245, 10304, 10305, 10362
- vegetable crops, review 70
- Vicia*, broad bean 7733
- Zea*, maize 1990, 4033, 4048, 6057, 8058, 10245, 10452, 10461
- Ligule**
  - Hordeum* 8089, 8098
  - Oryza* 2843, 6146, 10597
  - Sorghum* 4130
  - Triticum* 153, 7956
  - Zea*, maize 4028, 7025
- Ligule**, colour, *Secale* 10419
- Ligule**, shape, *Secale* 10419
- Lilium**
  - chemicals, as plant constituents, nucleic acids 15
  - cytoplasm 15
  - meiosis 15
- Lima bean** (see *Phaseolus*)
- Lime** (see *Citrus*, lime; *Tilia*)
- Linkage** 4, 997, 1619, 1627, 2775, 3812, 3813, 4781, 5728, 5730, 5737, 6829, 10200, 10201 (see also Gene location)
- Beta*, sugar beet 7421
- Brassica* 865, 1533, 1535
- Brassica*, Chinese cabbage 5584
- Brassica*, turnip 5584
- Cajanus* 4760
  - fruit, shape 11191
  - leaf 11191
  - seed, colour 11191
  - seed, shape 11191
- cereals 1033
- Cicer* 2747, 4756
- Clarkia* 5749
- Cucumis*, cucumber 5610, 7694
  - determinate and indeterminate habit 8531
  - internode, length 8531
  - internode, number 8531
- Daucus* 5546
- Glycine* 3774
- Gossypium* 528, 4371, 6344
- Hibiscus* 9832
  - colour 9019
- Hordeum* 94, 316, 2022, 2023, 2049, 3109, 4086, 4090, 5036, 5045, 8076, 8079, 8080, 8081, 8085, 8086, 8090, 8091, 8835
- awns 9601
- chlorophyll 9601
- endosperm 8068
- Erysiphe* 8077, 8125, 9617
- growth period 8075
- gynecium 8074
- hordein 8077
- lysine 8079
- naked grain 8074
- necrotic leaf spotting 8088
- seed, colour 8077
- sterility, male 8068
- Ustilago* 8077
- Lactuca* 3690, 6628
- Lespedeza* 469
- Linum* 3379
- Lupinus* 5236
- Lycopersicon* 891, 892, 894, 897, 898, 1555, 2651, 3713, 4638, 5621
- alcohol dehydrogenase 11043
- Fulvia* 8558, 8559, 10978
- viruses 10084
- Manihot* 6395
- Nicotiana* 4433
- Oryza* 4, 356, 367, 387, 1222, 1228, 2121, 2845, 3176, 4201, 6146, 6153, 6181, 7190
- Cercospora* 9664
- fertilization, sexual 10597
- flower, colour 9664
- growth period 9664
- hairs 9664
- ligule 10597
- Pennisetum*, alcohol dehydrogenase 8128
- Phaseolus*
  - determinate and indeterminate habit 11094
  - growth period 11094
  - Xanthomonas* 11094



**Linkage contd.**

- Pinus* 5532  
 alcohol dehydrogenase 10954  
 aspartate aminotransferase 10954  
 leucine aminopeptidase 10954  
 limonene 9194  
 myrcene 9194  
 peroxidase 10032  
 phosphoglucomutase 10032  
 6-phosphogluconate dehydrogenase 10954  
 phosphoglucose isomerase 10954  
*Pisum* 974, 3839, 5749  
 albumin 8619  
*Psophocarpus* 8626  
*Raphanus* 3654  
*Rhizobium* 3236  
*Ricinus* 4468  
*Secale*  
 anthocyanins 8002  
 leaf, colour 8002  
 sterility, self 8002, 10419  
*Sorghum* 2081, 4130, 5077  
 awns 9641  
 hairs 9641  
 inflorescence 9641  
 spikelets 9641  
 spikelets, colour 9641  
*Triticum* 111, 201, 1106, 1860, 1865, 2883, 5852, 5901, 5934  
*Erysiphe* 7956  
 ligule 7956  
*Puccinia* 7963  
 spring and winter habit 7956  
*Vigna*, minor species 7757  
*Zea*, maize 4, 264, 1034, 1132, 1946, 1974, 1989, 3032, 3035, 3038, 3074, 4960, 4962, 4963, 4965, 4979, 4986, 5991, 6000, 6001, 7035, 8035, 9539, 9541, 9562, 10429, 10430  
 alcohol dehydrogenase 8804  
 anthocyanins 8031, 8800  
 carotenoids 8031  
 embryo 8031  
 enzymes 9533  
 glutamate dehydrogenase 8804  
 glutamate oxaloacetate transaminase 8804  
 isocitrate dehydrogenase 8804, 10463  
 malate dehydrogenase 8804, 10463  
 phosphoglucomutase 8804  
 phosphohexose isomerase 8804  
 seed, size 8799

**Linkage, technique 3****Linseed (see *Linum*)*****Linum***

- altitude 9410  
 aneuploidy 8311, 9012, 9013  
 back crossing 556  
 breeding, Belorussian SSR 5311  
 calyx 7397  
 calyx, size 7397  
 chemicals, as plant constituents  
 fatty acids 65  
 nucleic acids 3376  
 oil, fatty 2316, 4396, 7396, 7398  
 peroxidase 6363, 9014  
 chromosomes, aberrations 9013  
 combining ability 2316, 2317, 7396  
 growth period 9010  
 oil, fatty 7398  
 yield components 9011  
 development and growth 5312  
*Fusarium* 1027, 5314, 8313, 8314, 9828  
 genetic variance, oil, fatty 7398  
 genetics  
*Fusarium* 9828  
*Melampsora* 1354, 3375, 3379, 4398, 5313, 8315, 9828, 10733  
 genotrophs 3376, 6363, 9014, 9382  
*Gibberella* 5314, 8313, 8314  
 growth period 556, 2316, 5312, 9010, 9410, 9826, 9827  
 haploidy 8311, 9012, 9013  
 height 2316, 8311, 9410, 9826, 9827  
 heritability 3378  
 growth period 9010  
 oil, fatty 7398  
 heterostyly 10207  
 ideotype 9015  
 light, effect of 9016  
 linkage 3379  
 meiosis 8311, 9013

***Linum* contd.**

- Melampsora* 1354, 3375, 3379, 5313, 5314, 6364, 8312, 8313, 8314, 9016, 9828, 10733  
 physiological races 4398, 8315  
 multivariate analysis 9826  
 pathology 3867  
 phloem 558  
 photoperiodism 3862  
 photosynthesis 7397  
 polyembryony and twinning 8311, 9012, 9013  
 polyploidy 8311, 9012, 9013  
 quality, of fibre 558, 2317, 10731, 10732  
 seed, weight 3378  
 selection, artificial 4395  
 soil pH 3378, 9827  
 sterility and fertility 8311, 9012  
 sterility, male, cytoplasmic, review 557  
 tissue culture 6363  
 varieties  
 Canada 1353, 3375  
 USA 1354  
 USSR 558, 10730  
 variety trials  
 Argentina 4396  
 Canada 4397, 7395, 8310  
 Romania 9825  
 USA 8310  
 yield components 2316, 3377, 3378, 4395, 9011, 9015, 9410, 9826, 9827

***Lipaphis***

- Brassica* 10054  
*Brassica*, oil crops 10814  
*Crambe* 10054  
 Cruciferae 10054  
*Eruca* 10054  
*Raphanus* 2598

***Liquidambar***

- breeding, USA 7626  
 cold, effect of 803  
 germination 803

**Litchi (see *Nephelium*, litchi)****Lodging**

- Aegilops* × *Triticum* 1067  
*Avena* 93, 3994, 5967  
*Elymus* × *Triticum* 115  
*Glycine* 968, 3749, 6750, 7767, 10136, 10138, 10142  
*Hordeum* 93, 302, 1152, 2042, 2852, 3093, 6070, 6103, 8706, 8852, 8864, 8866, 9616, 10519  
*Lycopersicon* 8552  
*Manihot* 2250  
*Medicago* 1261, 1274  
*Nicotiana* 615, 1382, 1383  
*Oryza* 1229, 3170, 3172, 4189, 4200, 4793, 8197, 9657  
*Pennisetum* 6201  
*Phaseolus* 8576  
*Pisum* 7781, 8617  
*Poa* 8937  
*Secale* 1650, 4935, 5976, 7993, 8788  
*Secale* × *Triticum*, triticales 5949, 7977  
*Sorghum* 6122, 6129, 10571  
*Triticum* 93, 101, 159, 162, 178, 180, 194, 1827, 2929, 2961, 2962, 5834, 5835, 5841, 5891, 6912, 7082, 7882, 7884, 8706, 8723, 8747, 8759, 9421, 9448, 10271, 10276, 10302  
*Zea*, maize 1926, 1982, 3026, 3029, 3067, 4035, 4946, 5004, 5987, 5992, 6021, 6025, 8038, 8794, 8829, 9520

**Lodging, technique**

- cereals 5816  
*Triticum* 2963  
*Zea*, maize 6055

***Lolium***

- altitude 2195  
 aneuploidy 9731  
 anther, colour 6221  
 anther culture 5155  
 breeding, Finland 7824  
 breeding, technique 5151  
 chemicals, as nutrients, nitrogen 7246, 7247  
 chemicals, as plant constituents  
 aminoacids 7232  
 anthocyanins 8237  
 carbohydrates 5179, 5183, 5184, 7230, 7251  
 carbohydrates, technique 4241  
 cellulose 7251

***Lolium* contd.**

- chemicals, as plant constituents contd.  
 enzymes 5178  
 esterase 424  
 fructosan 5184  
 glutamate oxaloacetate transaminase 9731  
 heterochromatin 8239  
 nitrogen 7232  
 nucleic acids 422, 5722, 8239  
 perloline 7235  
 peroxidase 7247  
 phenols 7247  
 phosphoglucose isomerase 3221, 9731  
 protein 424, 425, 7232, 8241  
 ribulose 1,5-diphosphate carboxylase 423, 6222  
 chemicals, general effects  
 phorate 6223  
 sulphur dioxide 7226, 8935  
 chromosomes, morphology 8239  
 cold, effect of 5186, 7226  
 cold resistance 425, 1242, 5183, 5186, 7253, 7824, 9733  
 colour 7245  
 combining ability 425  
 competition 8945, 10637  
*Corticium* 7245  
 crossing over 5181  
 defoliation, artificial 3221  
 development and growth 2195, 4261, 5179, 6202, 9732  
 diallel analysis 425  
 digestibility 6202, 7228, 7251  
 digestibility, technique 5157  
*Drechslera* 7246  
 ecotypes 3206, 4261  
 embryo culture 3224, 5155  
 experimental designs 411  
*Fusarium* 7245  
*Gaeumannomyces* 8946  
 gene location  
 glutamate oxaloacetate transaminase 9731  
 phosphoglucoisomerase 9731  
 genetic resources 2178, 2179, 8235  
 genetics  
 anthocyanins 8237  
 phosphoglucose isomerase 3221  
*Puccinia* 5187  
 genotype × environmental interaction 10632  
 geographical races 1242  
 germination 425, 1249  
 glass and plastic, cultivation under 6221  
 growth period 2195, 4261, 5184, 6202, 7251, 8236, 10632  
 habit 7249  
 heat and drought resistance 5179, 7245, 8229  
 height 2196, 7226, 7245, 8236  
 heritability 1242, 4259  
 heterosis 425  
 history and evolution 7850, 8239, 8241  
 hybridization, interspecific 415, 422, 1246, 3221, 5177, 5181, 5722, 6224, 7249, 7251, 8237, 9384  
 inbreeding 422, 8239, 8241, 10632  
 inflorescence 3221  
 inflorescence, number 10632  
 inhibitors 5187  
 insects 6223  
 irrigation 7252  
 lawns and sports turf 7226, 7245, 7246, 8228, 8236, 8240  
 leaf, length 7249  
 leaf, size 2196  
 leaf, weight 5184  
 light, effect of 5151, 5157  
 mechanical injury 7245, 7246, 7252  
 meiosis 5181, 8237  
*Microneectriella* 7246, 8236, 8240, 10636  
 mixtures of crops or genotypes 7252, 7850, 8228, 10636  
 mowing and cutting 4261  
 multiple alleles 3221  
 multiple genes, anthocyanins 8237  
 outcrossing 5178, 8239, 8241  
 palatability 7228, 7230  
 persistence 5153, 9733, 10636  
 photosynthesis 6222  
 ploidy 9732, 9733  
 pollution, atmospheric 7226, 8935



**Lolium** *contd.*

- polyploidy 52, 415, 423, 424, 1248, 5177, 5181, 6202, 6222, 6224, 7247, 7248, 7250, 7251, 7254, 7850, 8237, 8946, 9384, 10636
  - population genetics 5178
  - protoplasts 5155
  - Puccinia* 425, 5187, 7254
  - quality, for nutrition 7230, 7251
  - root 10637
  - seasonal growth 5153
  - seed 9732
  - seed, moisture 9732
  - seed production 5156
  - seed, weight 425
  - selection, artificial 1249, 4259, 4260, 10633
  - stability 5179, 7250
  - stem, number 7246
  - sterility and fertility 5185, 10632
  - sterility, male 6221
  - sterility, self 5185
  - taxonomy 8944
  - temperature, effect of 7253
  - tillering 4260
  - tissue culture 5155
  - varieties
    - Czechoslovakia 3855
    - Poland 52
    - Switzerland 3207
    - USA 6220, 10634
  - variety trials
    - Belgium 1246
    - German Federal Republic 1246
    - Netherlands 1246
    - New Zealand 413, 414
    - Norway 5177
    - UK 1246, 6223, 7226, 7245, 7246, 8236
    - USA 1042
  - vernalization 5151
  - viruses 6224
- Lolium** × *Festuca*, hybridization, intergeneric 415, 1247, 1252, 3222, 3223, 4262, 5180, 5182, 7227, 7256, 7257, 7258, 7260, 8222, 8238, 9388, 10635
- Lolium** × *Poa*  
hybridization, intergeneric 8222  
sterility and fertility 8222
- Longidorus**, *Zea*, sweet corn 4075
- Lonicera**, cold resistance 9152
- Lotus**  
altitude 5238  
aneuploidy 10678  
anther culture 10678  
breeding, USSR 10649  
chemicals, as nutrients, nitrogen 474, 475, 476  
chemicals, as plant constituents  
cyanogenetic compounds 2246, 4311, 4312, 5238, 7273  
flavonols 474, 475  
 $\beta$ -glucosidase 2246  
linamarase 2246  
procyanidin 475  
prodelphinidin 475  
protein 1291  
chemicals, general effects  
2,4-D 6275  
*Festuca* extract 9737  
chemicals, mutagenic effects  
2-aminopurine 472  
8-ethoxycaffeine 472  
ethyl methanesulphonate 472  
hydroxyurea 472  
chromosomes, number 9718, 9744, 10678  
cold resistance 8270  
combining ability 4309, 4310, 9761  
diallel analysis 4309, 4310  
ecotypes 5238  
embryo culture 5207  
flower, colour 9762  
fruit, size 473  
genetics, leaf, number of parts 472  
germination 473, 4311, 9737  
growth period 4310  
gynecium 1291  
habit 4310  
haploidy 10678  
heritability 4308  
heterosis 4310  
hybridization, interspecific 475, 5207

**Lotus** *contd.*

- inbreeding 4308
  - leaf, number of parts 472
  - mixoploidy 10678
  - mutation 7273
  - mutation, induced 472
  - nitrogen fixation 474, 475, 476
  - pollination 473, 1291
  - polyembryony and twinning 10678
  - polymorphism 4312, 9762
  - polyploidy 4311, 5238, 10678
  - Rhizobium*, physiological races 474, 475, 476
  - seed, number 473
  - seed production 2244, 7273
  - seed, size 4309, 9761
  - seedlings 5237
  - selection, artificial 4307, 4308, 4309, 5237
  - soil pH 4311, 5238
  - Stemphylium* 2246
  - sterility and fertility 4307, 4310, 4311, 5237
  - sterility, self 473, 1291
  - tissue culture 10678
  - variation 5238
  - varieties, Canada 2245, 8270
  - variety trials
    - Czechoslovakia 2244
    - New Zealand 414
    - Yugoslavia 8269
  - X rays 472
- Lucerne** (see *Medicago*)
- Lucerne**, Townsville (see *Stylosanthes*)
- Luffa**  
flower, size 5615  
flowering 5615  
genetics 2620  
gynecium, size 5615  
history and evolution 3705  
mutation 3704  
pollen 5615  
pollination 5615  
sterility, male 3704  
taxonomy 3705  
varieties 3705
- Luffa** × *Cucurbita*, hybridization, intergeneric 9251
- Luminescence**  
crop plants 10224  
*Lavandula* 10839  
*Prunus*, apricot 9102  
*Prunus*, cherry 9102  
*Prunus*, peach 9102  
*Pyrus* 9102  
*Triticum* 8758
- Lupin** (see *Lupinus*)
- Lupinus**  
breeding, Belorussian SSR 3294  
chemicals, as nutrients, nitrogen 3296  
chemicals, as plant constituents  
alkaloids 470, 1289, 3293, 3297, 4810, 7273, 7306, 8268  
aminoacids 1289  
arachidic acid 471  
aspartate transaminase 5236  
gramine 7306  
hemagglutinins 6676  
legumin 8951  
linoleic acid 471  
linolenic acid 471  
oil, fatty 471, 8268  
oleic acid 471  
phosphoglucosyltransferase 5236  
6-phosphoglucosyltransferase 5236  
protein 1289, 6870, 8268, 8951  
trypsin inhibitor 6676  
chemicals, mutagenic effects  
1,4-bis(diazoacetyl)butane 9759  
dimethyl sulphate 9759  
ethyleneimine 8958, 9759  
*N*-nitroso-*N*-ethylurea 9759  
*N*-nitroso-*N*-methylurea 8958  
chromosomes, number 8268  
cold resistance 6272, 6273  
embryo 471  
fruit, anatomy 7304  
fruit, number 4306  
*Fusarium* 3293, 3297, 4306, 7306, 9760  
genetic resources 4810, 6855  
genetics  
aspartate transaminase 5236

**Lupinus** *contd.*

- genetics *contd.*
    - development and growth 4306
    - Fusarium* 4306, 9760
    - phosphoglucosyltransferase 5236
    - 6-phosphoglucosyltransferase 5236
  - geography 8268
  - germplasm banks
    - Hungary 2181
    - Peru 6855
  - Glomerella* 3295, 6273
  - growth period 3293, 4306, 9759
  - hard seed 8268
  - heat and drought resistance 2806
  - heterosis 4306, 7303
  - history and evolution 8959
  - hybridization, interspecific 1289, 4305, 7307, 8268
  - leaf, anatomy 7304
  - linkage 5236
  - maternal effects, *Fusarium* 9760
  - matroclony 471
  - mutation 7273
  - mutation, induced 3293, 8958
  - growth period 9759
  - Nectria* 55
  - outcrossing 5236, 7305
  - Phomopsis* 6274
  - recombination 6, 470
  - Rhizobium* 7732
    - physiological races, USSR 3296
  - root, anatomy 7304
  - seed, number 4306
  - seed production 7273
  - seed, weight 471, 4306
  - seedlings 4306
  - selection, natural 6, 66
  - shedding 3293, 6272, 6273, 7304, 8268
  - stem, anatomy 7304
  - Stemphylium* 3295, 6273
  - sterility and fertility 4305, 7307
  - sterility, self 7307
  - succession, crop 1290
  - taxonomy 8268
  - varieties
    - Australia 3295, 4304
    - Poland 55
    - Ukrainian SSR 3297
    - USA 6272, 6273
  - variety trials, USSR 4237
  - viruses, technique 3237
- Luzula**, chromosomes, morphology 9352
- Lycopersicon**  
*Alternaria* 915, 920, 2639, 4637, 4656, 6664, 9280  
altitude 10080  
andrecium 901  
aneuploidy 58, 898  
anther culture 3708, 4644, 7708, 8547  
anther, size 3709  
*Aphis* 2653  
bacteria 4598, 6652  
*Bemisia* 6666  
blossom end rot 8554  
blotch 8553  
*Botrytis* 915  
breeding
  - Israel 5628
  - Pakistan 6647
  - USA 9257
  - USSR 1552, 10980- cell culture 907
- chemicals, as nutrients  
calcium 4638, 8543  
magnesium 4638  
miscellaneous 9273  
nitrogen 4638  
phosphorus 4638  
potassium 4638, 8553, 8557
- chemicals, as plant constituents  
ABA 3711  
acid phosphatase 898  
acids 2639, 6651, 6657, 11054  
alcohol dehydrogenase 3713, 5621, 11041, 11043  
aminoacids 906, 4659, 6661, 7723, 10042  
anthocyanins 11044  
ascorbic acid 894, 1521, 2639, 3717, 6651, 8541, 9282, 11054, 11055  
ascorbic acid, technique 7710  
 $\beta$ -carotene 6658



*Lycopersicon* contd.

- chemicals, as plant constituents contd.  
 γ-carotene 6658  
 carotenoids 3707, 9269  
 chlorogenic acid 7723  
 chlorophyll 2647, 2652, 3707, 3723, 5629, 8541, 10237  
 citric acid 3716  
 copper 2652  
 cytochrome oxidase 9273  
 cytokinins 11053  
 enzymes 5633  
 esterase 898  
 fructose 3716  
 glucose 3716  
 glutamate oxaloacetate transaminase 898  
 growth regulators 3711  
 heterochromatin 2259  
 IAA oxidase 7722  
 iron 3717  
 lectins 9278  
 lycopene 6658  
 magnesium 2652  
 malate NADP oxidoreductase 1517  
 malic acid 2641  
 miscellaneous 905, 2649  
 nitrogen 7723, 10042  
 peroxidase 898, 909, 1558, 5633, 7722  
 phenols 6664, 7723  
 phosphofructokinase 1517  
 phosphoglucosyltransferase 3713, 11041  
 phosphoglucose isomerase 898, 2643  
 phytoalexins 3719, 11060  
 polygalacturonase 1517  
 proline 910, 5629  
 protein 1558, 3717, 4659, 6651  
 rishitin 9281, 11060  
 shikimate dehydrogenase 898  
 sugar 4646, 4650, 6651  
 tomatine 4652  
 α-tomatine 921, 11060  
 triose phosphate isomerase 898, 3713  
 triosephosphate isomerase 898  
 volatile compounds 5622  
 chemicals, cytological effects  
 actinomycin D 58, 1555  
 adenosine 1555  
 aminoacids 58  
*Cladosporium* extract 1556  
 colchicine 58  
 cuprosan 895  
 diethyl methanesulphonate 904  
 diethyl sulphate 1555  
 dimethyl sulphate 1555  
 diphenamid 895  
 ethyl methanesulphonate 904, 1555  
 5-fluorouracil 1555  
*Fusarium* extract 1556  
 kinetin 1555  
 mitomycin C 58  
 parathion-methyl 895  
 phosalone 895  
 2-thioxanthene 1555  
*Verticillium* extract 1556  
 chemicals, fertility and sex, effects, GA 2644, 3709  
 chemicals, general effects  
 ABA 3711  
 chlormequat 9277  
 chlorothalonil 7717  
*Cladosporium* toxin 919  
 2,4-D 2648  
 3,4-dehydroproline 910  
 ethanol 5629  
 ethephon 5624, 5629, 7707  
 GA 9277  
 glycoprotein 9281  
 growth regulators 3711  
*Lycopersicon* extract 3711  
 mannitol 910  
 metribuzin 1559, 2652  
 ozone 4653  
 proline 910, 9272  
 sodium chloride 910, 9272  
 chemicals, mutagenic effects  
 dimethyl sulphate 7705  
 ethyl methanesulphonate 903  
 ethyleneimine 7705  
 GA 900  
 miscellaneous 1521  
 N-nitroso-N-ethylurea 7705  
 chimeras 916, 3708, 11052

*Lycopersicon* contd.

- chromosome translocation 58, 923, 2639, 5620  
 chromosomes, aberrations 824, 904, 923, 2639  
 chromosomes, morphology 2259  
*Cladosporium* 827, 890, 915  
 physiological races 917, 919, 1558  
 cold, effect of 10080  
 cold resistance 914, 9277, 10080, 11061  
 cold resistance, technique 10237  
*Colletotrichum* 915, 917, 7717  
 combining ability 896, 4640, 6648, 7701, 7702, 7706, 7709, 8548  
 ascorbic acid 11055  
 fruit 11055  
 fruit, texture 8542  
 quality, for food processing 11055  
 yield components 8544, 11046  
*Corynebacterium* 2591, 11058  
*Corynebacterium*, technique 11059  
 crossing over 899  
 cytoplasmic inheritance 916, 1517, 2596, 4648  
 determinate and indeterminate habit 2639, 2646, 4643, 6655, 6656, 9258  
 development, abnormal 1517  
 diallel analysis 7706  
*Didymella* 10978  
 dormancy 3711  
 electricity, effect of 893  
 epidermis, colour 2642  
*Erwinia* 8557  
*Exomolopsis* 11044  
 fertilization, sexual 9268  
 flooding 1643  
 flower, number 913, 1517, 9266  
 foliage area 7715, 8552  
 fruit 11055  
 fruit, colour 2642, 6658, 9269  
 fruit cracking 11057  
 fruit, number 894, 2648, 5623  
 fruit, size 923, 2642, 5617, 11048  
 fruit, texture 8542  
 fruit, weight 894, 905, 5623, 6657, 11048  
*Fulvia* 4656, 7700, 8500, 8540, 8558, 10980  
 physiological races 2651, 9281, 10978  
 USSR 10081  
 fungi 4598, 6652  
*Fusarium* 827, 890, 915, 917, 2638, 4599, 4637, 5632, 7714, 8540, 10980, 11056, 11058, 11062  
 physiological races 3719, 5632, 11060  
 γ rays 893, 894, 899, 903, 904, 4639, 6657, 9267, 10077, 10078  
 gene dosage 6667  
 gene location 898, 3713  
 alcohol dehydrogenase 11041, 11043  
 phosphoglucosyltransferase 11041  
 genetic resources 2594, 9412  
 genetic variance 7706  
 yield components 11046  
 genetics  
 acid phosphatase 898  
 alcohol dehydrogenase 3713, 5621, 11041, 11043  
*Alternaria* 4637  
 anther, size 3709  
 anthocyanins 11044  
 bacteria 4598, 6652  
 chlorophyll 3723, 8541  
*Cladosporium* 890, 1558  
 determinate and indeterminate habit 2639  
 epidermis, colour 2642  
 esterase 898  
 flower, number 9266  
 fruit, colour 2642, 6658  
*Fulvia* 2651, 8558, 8559, 9281, 10081, 10978  
 fungi 4598, 6652  
*Fusarium* 890, 3719, 4637  
 glutamate oxaloacetate transaminase 898  
 growth period 1517  
 habit 1517, 10978  
 height 2639  
 leaf, shape 8548  
*Meloidogyne* 2651, 3721, 4637, 11058, 11063  
 parthenocarpy 2591, 3709, 10978  
 peroxidase 898

*Lycopersicon* contd.

- genetics contd.  
 phosphoglucosyltransferase 898, 2643  
 phosphoglucosyltransferase 3713, 11041  
 phosphoglucose isomerase 898, 2643  
 ripening 909, 2641  
 seed, colour 1552  
 shikimate dehydrogenase 898  
 sterility and fertility 908, 2639, 2645, 8548  
 sterility, male 1552  
 sterility, self 4649, 11052  
 triose phosphate isomerase 898, 3713  
 triosephosphate isomerase 898  
*Verticillium* 3719, 4637, 8560  
 viruses 890, 1517, 3723, 4598, 4637, 5634, 5795, 6652, 6667, 6668, 7726, 8500, 8563, 10083, 10084, 10978, 11065, 11066  
 germination 2643, 3706, 3711, 8549  
 germplasm banks  
 Taiwan 1664, 3849  
 USA 2636  
 glass and plastic, cultivation under 906, 1520, 1552, 4636, 10075, 10980  
 grafting 823  
 gravity 893  
 growth period 905, 1517, 2646, 4643, 4647, 4648, 5618, 5623, 6661, 7698, 7701, 7702, 7711  
 gynecium 2644, 2648, 4645, 8548  
 habit 1517, 4646, 6660, 8552, 10978  
 hairs 6666, 8562  
 haploidy, technique 7708  
 harvesting, mechanical 2649, 5627, 6652, 7711, 7712, 9412, 10075, 11048  
 heat and drought resistance 1521, 1643, 4814, 5630, 7715, 8554, 9276  
 heat and drought resistance, technique 10237  
 heat, effect of 893, 911, 5630  
 height 923, 2639, 8552  
*Helicotylenchus* 3720  
*Heliothis* 2653  
 heritability 5623, 8543  
 fruit, texture 8542  
 heterosis 4640, 6648, 6653, 7704, 7709, 8546, 8548, 9270  
 fruit, texture 8542  
 yield components 8544  
 heterosis, technique 3707  
 heterostyly 6653  
 heterozygosis 3708  
 history and evolution 14, 912  
 hybrid varieties 6648, 9259, 9260, 9262  
 hybrid varieties, technique 4645, 5628  
 hybridization 6653  
 hybridization, interspecific 898, 901, 907, 908, 1557, 2636, 2639, 2640, 2645, 3706, 4641, 4642, 4644, 5631, 6875, 8351, 8550, 8562, 9265, 10078, 10978  
 hydroponics 9279  
 insects 2654, 11064  
 internode, size 923, 2642  
*Keiferia* 2653  
 laser beams 892, 904  
 leaf, colour 1517  
 leaf distortion 916  
 leaf, shape 2642, 8548  
 leaf, size 2642, 2648, 6654  
*Leveillula* 5631  
 light, effect of 906  
 linkage 891, 892, 894, 897, 898, 1555, 2651, 3713, 4638, 5621  
 alcohol dehydrogenase 11043  
*Fulvia* 8558, 8559, 10978  
 viruses 10084  
 lodging 8552  
 magnetism, effect of 1356  
*Manduca* 2653  
 mechanical injury 8551  
 mechanical injury, technique 9275  
 meiosis 58, 899, 923, 2639, 3710, 4639  
*Meloidogyne* 829, 923, 1560, 1643, 2638, 2639, 2651, 3721, 4637, 4657, 4820, 5633, 7714, 7720, 7721, 7722, 7723, 7724, 8561, 9283, 10042, 10082, 10980, 11056, 11058, 11063  
*Meloidogyne*, technique 4658  
 multivariate analysis 11049  
 mutation 14, 916, 2641, 2647, 3709, 6652, 9271, 10237  
 flower, number 9266



***Lycopersicon* contd.**

## mutation contd.

- photosynthesis 11051
- ripening 11061
- mutation, induced 900, 903, 1521, 2642, 3708, 6652, 7705, 10077, 10981
- corolla 9267
- determinate and indeterminate habit 9267
- fruit, weight 9267
- growth period 9267
- polyploidy 9267
- sterility, male 9267
- mycoplasmas 824
- Myzus* 2653
- nematodes 827, 1521
- neutrons 904
- outcrossing 11044
- parthenocarp 1483, 2591, 3709, 4646, 10978, 11053
- pathology 2650, 9257
- photosynthesis 2647, 6654, 6655, 11051
- Phytophthora* 828, 915, 918, 2591, 2639, 4656, 6665, 7718, 7719, 9279, 9280, 9282
- book 921
- plant introduction, to Cuba 9214
- pollen 911, 3715, 7703, 10078
- pollination 4645, 9268
- pollination, technique 6867
- polyploidy 905, 3708, 3710, 4641, 4644, 10077, 10978, 11052
- protoplasts 9272, 11047
- pruning 913
- Pseudomonas* 1643, 4655, 6662, 6663, 9278, 11058
- physiological races 8555, 8556
- quality, for canning 5626, 6660, 9274
- quality, for food processing 5625, 5626, 8550, 10075, 11054, 11055
- quality, for fresh consumption 1517, 4650, 6659, 7698
- quality, for fresh consumption, technique 4651
- quality, for storage 1517, 1521, 3716, 6652, 10079
- quality, of juice 6650
- radiation 900, 918
- recombination 58, 823, 891, 892, 893, 894, 895, 897, 899, 900, 923, 1555, 1556, 2639, 3706, 4638, 4639
- respiration 5629, 11043
- Rhizopus* 11061
- ripening 909, 1517, 2641, 3716, 8553, 11061
- root, size 7715
- rooting capacity 7707
- rootstock 11058
- salinity 68, 910, 1684, 5791, 6875, 7703, 9272
- seed 2643
- seed, colour 1552
- seed production 4645, 4647, 5628
- seedlessness 4646, 6652
- Septoria* 920, 2639, 4656
- silvering 916, 1517
- sowing and planting date 891
- stability 5619
- stem, size 7707
- sterility and fertility 905, 908, 911, 923, 1557, 1643, 2639, 2645, 3712, 3715, 4639, 4641, 4642, 4644, 7719, 8351, 8548, 9271, 10978, 11048
- sterility, male 901, 1552, 3710, 6652, 7709, 9270
- sterility, self 2640, 2644, 3708, 4649, 11052
- taxonomy 912
- temperature, effect of 2591, 3706, 4638, 4648, 4820, 8549, 9268, 10083, 10978, 11063
- Tetranychus* 8562
- tissue culture 910, 1522, 2596, 2640, 3708, 3714, 4644, 9265, 11047, 11052
- Trialeurodes* 10978
- Tylenchorhynchus* 3720
- ultraviolet rays 894, 904, 2642, 4639, 10078
- varieties
  - Australia 2638
  - Canada 2637
  - France 2591
  - Japan 890, 3857

***Lycopersicon* contd.**

## varieties contd.

- Netherlands 7697
- UK 9259, 9260, 9261, 9262, 9263, 9264
- Ukrainian SSR 7700
- USA 4637, 5618, 8540
- USSR 10980
- variety trials
  - Ghana 889
  - Hungary 7699
  - Indonesia 1553
  - Italy 1554
  - Netherlands 7697
  - New Zealand 7698
  - Pakistan 6649
  - Tunisia 1520
  - USA 5617, 11040
  - USSR 4636
- Verticillium* 827, 915, 917, 2591, 2638, 3719, 4637, 7714
- physiological races
  - Greece 7716
  - Italy 8560
- Verticillium*, technique 3718
- viruses 827, 890, 915, 924, 1521, 2591, 2655, 3722, 3723, 4598, 4637, 4659, 5795, 6600, 6652, 6668, 7725, 7726, 8351, 8500, 9258, 10083, 10084, 10978, 10980, 11064, 11066
- physiological races 1517, 2656, 5634, 6667, 11065
- Japan 8563
- water balance 7715, 8554
- waterlogging 5629
- Xanthomonas* 4654
- Xiphinema* 7721
- xylem 3719, 5632
- yield components 896, 4640, 6656, 7706, 8544, 11045, 11046, 11049, 11050
- Lycopersicon* × *Solanum***
  - andrecium 901
  - chemicals, as plant constituents
    - acid phosphatase 898
    - acids 7713
    - aminoacids 7713
    - carotene 902, 8545
    - β-carotene 8545
    - glutamate oxaloacetate transaminase 898
    - polypeptides 10076
    - ribulose 1,5-diphosphate carboxylase 10076
  - determinate and indeterminate habit 8545
  - fruit, size 8545
  - fruit, weight 8545
  - genetics
    - acid phosphatase 898
    - carotene 902
    - β-carotene 8545
    - determinate and indeterminate habit 8545
    - glutamate oxaloacetate transaminase 898
    - polypeptides 10076
    - ribulose 1,5-diphosphate carboxylase 10076
  - growth period 8545
  - heterosis, carotene 8545
  - hybridization, intergeneric 898, 901, 902, 912, 4642, 7703, 7713, 8545, 10076
  - pollen 7703
  - salinity 7703, 7713
  - sterility, male 901
- Lycopersicon* - *Solanum*, potato**
  - chemicals, as plant constituents
    - chymotryptic peptides 11042
    - ribulose 1,5-diphosphate carboxylase 11042
    - tryptic peptides 11042
  - chromosomes, number 11042
  - cold resistance 10237
  - protoplast fusion 10237, 11042
- Lygus***
  - Gossypium* 6359, 9824
  - Phaseolus* 11108
- Macrophomina***
  - Brassica*, oil crops 1405
  - Cicer* 2753, 4667, 7794, 10183
  - Helianthus*, sunflower 2422, 10822
  - Hibiscus* 8319

***Macrophomina* contd.**

- Sorghum* 2794, 4133, 5072, 7165, 7166, 7167, 7168, 7169, 7170, 8146, 10584
- Vigna*, cowpea 11109
- Vigna*, minor species 6744
- Zea*, maize 6056
- Macrophomina*, technique, *Sorghum*** 7164
- Macroposthonia*, *Medicago*** 3276
- Macroptilium***
  - chemicals, as plant constituents,
    - chlorophyll 3724
  - cold resistance 6822
  - γ rays 3724
  - habit 3724
  - height 3724
  - history and evolution 5640
  - leaf 3724
  - mutation, induced 3724
  - ovule 5640
  - pollen 5640
- Macrosiphum*, *Lactuca*** 6631
- Macrosteles*, *Daucus*** 5551
- Macrotyloma***
  - chemicals, as plant constituents
    - calcium 2762, 2763
    - carbohydrates 2762
    - iron 2762
    - oil, fatty 2762
    - oxalic acid 2763
    - phosphorus 2762, 2763
    - protein 2762
  - geography 6818
  - growth period 6818
  - habit, technique 9337
  - heritability 6818
  - history and evolution 5640
  - multivariate analysis 2758
  - ovule 5640
  - pollen 5640
  - yield components 2758, 6818
- Macrotyloma* × *Lablab***, hybridization, intergeneric 9408
- Magnaporthe*, *Oryza*** 1202, 1203, 4219, 5117, 5119, 8206
- Magnetism, effect of**
  - Fragaria* 3600
  - Hibiscus* 1356
  - Lycopersicon* 1356
  - Solanum*, egg plant 1356
  - Triticum* 5844
  - Vitis* 3615
- Maize (see *Zea*, maize)**
- Male sterility (see Sterility, male; Sterility, male, cytoplasmic)**
- Malting quality (see Quality, for malting and brewing)**
- Malus***
  - aneuploidy 2475, 9105
  - Aphis* 5795
  - apomixis 682, 3506
  - back crossing 5421
  - bitter pit 2483, 3527
  - breeding
    - China 7541
    - Finland 4507
    - France 5422
    - Kazakh SSR 8384
    - Romania 1436, 6474
    - Sweden 5411
    - UK 5422
    - USA 1436
    - USSR 7531, 9932
  - calyx 3527
  - cell, size 10861
  - chemicals, as nutrients
    - calcium 2483
    - magnesium 2483
    - potassium 2483
  - chemicals, as plant constituents
    - acids 2474, 4505
    - boron 3524
    - calcium 3497, 3524, 6487
    - carotene 7535
    - chlorophyll 4514
    - copper 3524
    - iron 3524
    - magnesium 3497, 6487
    - manganese 3524
    - nitrogen 3524, 6487
    - nucleic acids 2481
    - phenol oxidase 10862
    - phenols 667
    - phloridzin 667



**Malus contd.**chemicals, as plant constituents *contd.*

phosphorus 6487  
 potassium 3497, 3524, 6487  
 quercetin 4'-glucoside 667  
 sieboldin 667  
 sugar 4505, 9933  
 trilobatin 667  
 volatile compounds 3532  
 zinc 3524

chemicals, fertility and sex, effects

boric acid 7551  
 2,4-D 7551

chemicals, general effects

BA 2477  
 calcium chloride 3497, 3527  
 daminozide 2478, 8387  
 ethephon 2478  
 GA 2477  
 2,4,5-trichlorophenoxypropionic acid 2478

chemicals, mutagenic effects,

miscellaneous 2471

chimeras 2470, 7549, 7550

cold, effect of 2482, 10862

cold resistance 2479, 2480, 2481, 3512, 3517, 3526, 4511, 6480, 7541, 8393, 9932, 10858

cold resistance, technique 5429, 7554

colour 685

combining ability 3526, 5421

*Cydia* 4505

development, abnormal 2482

*Dysaphis* 5795

endosperm 2475

*Eriosoma* 1432, 10865*Erwinia* 1430, 1432, 1438, 3528, 4517

review 678

foliage area 6485

fruit 3524

fruit, colour 682, 2474, 2478, 3506, 8387, 10863

fruit, shape 2474

fruit, size 2477, 3505, 10861, 10863

fruit, weight 2477

 $\gamma$  rays 1437, 2471, 2472, 2473, 2474, 4510, 7547

genetic resources 7536, 7537, 9412

genetics

fruit, colour 682, 3506

leaf, colour 682, 3506

phloridzin 667

*Podosphaera* 3514, 10863

sieboldin 667

stem, colour 682, 3506

trilobatin 667

*Venturia* 3513, 6480

germination 9931

germplasm banks

Sweden 4502

Switzerland 7538

USA 7539

USSR 6475

grafting 3528

habit 2476, 3497, 3525, 4511, 9928

hairs 5432

haploidy 682, 3506

harvesting, mechanical 667, 9412

heat and drought resistance 6485

height 1437, 2474, 6480, 6485, 10860

hemizygosis 2480

heritability 3526

history and evolution 10863

*Hoplocampa* 1446, 5795

hybridization, interspecific 667, 3516, 5431, 9109, 9932, 10863

inbreeding 3505, 7540

internode, size 2473, 4511

laser beams 10860

leaf 5432, 6487

leaf, colour 682, 3506

leaf, number 6485

mechanical injury 667

*Microtus* 5431

mixoploidy 5426, 7550

mutation 6486, 10863

fruit, colour 10863

mutation, induced 1437, 2470, 2471, 2473, 2474, 2480, 4510, 7547, 7553, 9101

mycoplasmas 8385

neutrons 2471

*Oligonychus* 9933**Malus contd.***Panonychus* 5430, 5432

parenchyma, anatomy 10861

*Phyllosticta* 3529*Phytophthora* 1432, 8394*Podosphaera* 667, 1436, 3497, 3512, 3514, 3529, 5795, 10863, 10864

pollen 686, 3523, 7551, 9106, 9927

pollination 4512, 4513, 5428, 6483, 8387, 8391, 9106, 9927

pollination, technique 6484

polyploidy 686, 2475, 3523, 5426, 5427, 6480, 7548, 7549, 7550, 9105, 9927, 10863

precocity of bearing 1443, 2468, 3512, 4511, 9928

*Pseudomonas* 6479*Psylla* 5795

quality, for food processing 667

quality, for fresh consumption 2474, 2478, 3505, 9103, 10858

quality, for fresh consumption, technique 4515

quality, for processing 4506

quality, for storage 667, 1445, 3497, 6478, 6488, 6489, 9107, 9929, 10862

quality, of cider 8392

quality, of juice 667, 3497

quality, of wine 687

radiation 667, 2480

recombination 5421

replant disease 3497

*Rhagoletis* 3532

ripening 684

rootstock 1430, 1432, 1444, 3497, 3528, 5413, 5419, 5423, 6487, 7552

seasonal growth 3512, 10853, 10857

seed storage 9930, 9931

selection, artificial 3504

spur variants 2471, 2472, 4511, 4514, 6485, 6486, 7553, 8387, 8388, 9101, 9932

stem, anatomy 1444

stem, colour 682, 3506

*Stereum* 10854

sterility and fertility 1441, 4510, 5427

sterility, self 1441, 2471, 9106, 9927

taxonomy 4516

temperature, effect of 684, 9931

tissue culture 683, 2475, 3497, 4504, 9105

variation 10855

varieties

Austria 8386

Finland 4509

France 5422

Greece 6476

Hungary 10859

India 9926

Italy 3520, 3521, 6477

Japan 1431, 3857, 9104

Norway 4508

South Africa 9925, 10856

Sweden 4509, 5424

Switzerland 7543

UK 1442, 5422

Ukrainian SSR 7544

USA 3522, 5425, 7545, 8390

USSR 2469, 6486, 9924

variety trials

Austria 8386

Belgium 679

Belorussian SSR 10858

Brazil 10857

German Democratic Republic 2468

German Federal Republic 3515

Italy 3519

Kirgiz SSR 680

Netherlands 6482

Poland 1439, 1440, 8389

S. Korea 8392

USA 3518, 5423, 8388, 9103, 9923

USSR 6481, 7532, 7542, 9924

*Venturia* 688, 689, 1436, 2471, 2474, 2484, 3512, 3513, 3516, 3529, 3530, 4506, 4518, 4519, 4520, 5795, 6480, 9108, 9109, 10864

physiological races 3531

Moldavian SSR 6490

X rays 2470, 2471, 2472, 4511

xenias 4512

yield 3504

**Malus × Pyrus**

fruit, anatomy 7546

germination 681

hybridization, intergeneric 681, 7546

seed, size 681

sterility and fertility 681

**Malva × Gossypium**, hybridization,

intergeneric 2292

**Mandarin** (see *Citrus*, mandarin)**Manduca***Lycopersicon* 2653*Nicotiana* 5356**Mangel** (see *Beta*, fodder beet)**Mangifera**

apomixis, technique 2514

*Ceratitis* 5461

chemicals, as plant constituents

arachidic acid 9976

linoleic acid 9976

linolenic acid 9976

oil, fatty 9976

oleic acid 9976

palmitic acid 9976

stearic acid 9976

volatile compounds 8419

chemicals, fertility and sex, effects,

potassium nitrate 1466

development and growth 3581

dormancy 3581

flowering 1466

fruit, anatomy 5461

fruiting, biennial or irregular 736

*Fusarium* 6522*Gibberella* 6523

immunology 2514

pollination 737

pollination, technique 5460

root, anatomy 10893

rootstock 7570, 10893

seasonal growth 736

stem, anatomy 10893

varieties, Israel 7570

**Mango** (see *Mangifera*)**Manihot***Anastrepha* 4796*Bemisia* 3417, 7430

breeding

Africa, review 4420

Colombia 9368

India 5331, 5332

Nigeria 2250, 5333

review 2352

*Cercosporidium* 4796

chemicals, as nutrients

nitrogen 3409, 3413

phosphorus 3409, 3413

potassium 3409, 3413

chemicals, as plant constituents

aminoacids 3408

calcium 3413

carbohydrates 580, 3408

 $\beta$ -carotene 5335

cyanogenetic compounds 580, 1634, 5335, 5337, 6394, 10770

fatty acids 3408

magnesium 3413

nitrogen 3413, 5335

phosphorus 3413

potassium 3413

protein 3408

starch 3400, 3404, 3407

sugar 581, 7429

sugars, reducing 581, 7429

chemicals, general effects, aluminium 4422, 6393

chromosomes, morphology 3403

chromosomes, number 3402, 3403

*Elsinoe* 9368

flowering 3406

foliage area 9848

genetic resources 4421, 6853

genotype × environmental interaction 2357, 7428

germplasm banks 7843

Colombia 2356

India 5330

Zaire 7844

germplasm banks, technique 579, 2353

*Glomerella* 3415

habit 2358, 3405

harvest index 9848

heat and drought resistance 9368

heritability 6395



**Manihot** *contd.*

- hybridization, interspecific 5334, 6395, 7430
- insects 4424, 6393
- leaf, colour 4425
- linkage 6395
- lodging 2250
- meiosis 3402
- Meloidogyne* 1634, 3397
- Mononychellus* 1634, 3416, 8329
- pathology 1296
- Phaeoramularia* 4796
- Phenacoccus* 1634
- photoperiodism 3406
- pollen 5334
- quality, for nutrition 3408
- rodents 5337
- soil pH 4422, 6393
- Sphaceloma* 4796
- sterility and fertility 5334
- temperature, effect of 1634, 2357, 7428
- Tetranychus* 3416, 8329
- tissue culture 2353, 2356
- toxic soils 4422, 6393
- tuber 3404
- Uromyces* 4796
- varieties
  - Malaysia 3401
  - Nigeria 9847
- varieties, classification 579
- variety trials
  - Brazil 3399, 3400
  - Colombia 2354
  - Mexico 3398
  - Peru 2355, 3397
- viruses 1634, 2250, 3417, 4425, 6395, 9849
  - review 7430
- water balance 9368
- Xanthomonas* 2250, 3412, 3413, 3414, 4423, 6395, 9368
  - bibliography 3410
- Xanthomonas*, technique 3411, 5336
- yield components 3405

**Manioc** (see *Manihot*)**Maple** (see *Acer*)**Marasmius**

- chemicals, general effects, *Theobroma*
  - extract 629
- Theobroma* 629

**Marjoram** (see *Origanum*)**Marrow** (see *Cucurbita*)**Maruca**, *Vigna*, cowpea 3740**Maternal effects**

- Aegilops*, nucleic acids 8729
- Brassica*, oil crops 9053
- Capsicum*, *Verticillium* 10843
- Elaeis*, *Fusarium* 8371
- Lupinus*, *Fusarium* 9760
- Nicotiana*, flowering 8335
- Oryza* 8164
- Saccharum* 9024
- Secale*,  $\alpha$ -amylase 7992
- Secale*  $\times$  *Triticum*, triticales, nucleic acids 8729
- Solanum*, potato, heat and drought
  - resistance 8294
- Theobroma*, viruses 9049
- Triticum*, nucleic acids 8729
- Vaccinium* 8427
- Vigna*, cowpea, *Callosobruchus* 9304
- Zea*, maize, yield components 8792

**Maternal inheritance** (see *Matrocliny*)**Mathematics**, fruit crops, book 2463**Matricaria**

- chromosomes, accessory 3489
- chromosomes, morphology 5406
- chromosomes, number 5406
- meiosis 3489
- polyploidy 3489

**Matrocliny**

- Brassica*, cabbage  $\times$  *Raphanus* 2606
- Brassica*, rape  $\times$  *Raphanus* 2606
- Brassica*, turnip  $\times$  *Raphanus* 2606
- Hordeum* 2049
- Lupinus* 471
- Oryza* 3181
- Vigna*, cowpea 6738
- Zea*, maize 252

**Matsumuratettix**, *Saccharum* 9026**Maturation period** (see *Growth period*)**Mayetiola**

- cereals, physiological races 4831

**Mayetiola** *contd.*

- Hordeum* 1156
- Secale*, physiological races, USA 4830
- Secale*  $\times$  *Triticum*, triticales, physiological
  - races, USA 4830
- temperature, effect of 4831
- Triticum* 111, 2883, 5840, 5842, 6971, 6973, 6986, 7883, 8772, 9419, 10256
  - physiological races 1106, 9494
- Meadow grass** (see *Poa*)
- Mechanical injury**
  - grasses 7237
  - Lolium* 7245, 7246, 7252
  - Lycopersicon* 8551
  - Malus* 667
  - Medicago* 1256
  - Phaseolus* 8581, 8584
  - Prunus*, cherry 2493
  - Solanum*, potato 4346, 4347, 4348, 4349, 4350, 4351, 4352, 4353, 6321, 7341, 8983
  - Trifolium*, red clover 1256
  - Vicia*, broad bean 6684
  - Zea*, maize 7066
- Mechanical injury, technique**
  - Fragaria* 760
  - Lycopersicon* 9275
  - Solanum*, potato 3324, 9789
- Medicago**
  - Acyrtosiphon* 456, 457, 3241, 3242, 5224, 6256, 6258, 8259
  - annual habit 8257
  - aphids 5208
  - Apis* 1257, 8953
  - breeding 434
    - Argentina 3241
    - Australia 3240
    - Belorussian SSR 8251
    - book 2210
    - Czechoslovakia 2211
    - Estonian SSR 4276
    - Kazakh SSR 8221
    - Spain 4279, 5209, 9746
    - symposium 3238, 3250
    - USA 1260, 3254, 5210, 5211, 6243
    - USSR 3260, 10649
  - breeding, technique 433
  - cell culture 7278, 10662, 10663
  - cell, size 7276
  - chemicals, as nutrients
    - calcium 3269
    - nitrogen 444, 1273, 3247, 3252, 4287, 5221, 5222, 6249, 9745, 10664, 10665
    - phosphorus 1273, 4285
    - potassium 1273
    - rubidium 3269
  - chemicals, as plant constituents
    - acid phosphatase 1266
    - aminoacids 5220, 10663
    - anthocyanins 9749
    - calcium 1271, 4285, 5220
    - carotene 450
    - chlorophyll 5215, 7817
    - copper 4285
    - cystathionine 10663
    - cysteine 10663
    - esterase 1266
    - estrogens 1259
    - glutathione 10663
    - iron 4285
    - leghemoglobin 444
    - leucine aminopeptidase 2218, 2219, 8254
    - lignin 6869
    - magnesium 4285
    - manganese 4285
    - methionine 10663
    - nitrate 1259
    - nitrogen 444, 3246, 3252, 7280, 7285
    - oil, fatty 1271
    - peroxidase 1266, 2218, 2219, 8254
    - phenols 2224
    - phosphorus 1271, 4285, 6244
    - potassium 1271, 4285
    - proline 7288
    - protein 450, 1271, 2216, 2226, 3243, 5220, 6244, 6870, 7279, 7281, 7282, 8257, 9748, 9750
    - ribulose 1,5-diphosphate carboxylase 7275
    - ribulose 1,5-diphosphate oxygenase 7275

**Medicago** *contd.*

- chemicals, as plant constituents *contd.*
  - saponins 454, 1259, 7283, 7284
  - sodium 5220
  - starch 444, 1271
  - tannin 6242, 6248, 7283
  - zinc 4285
- chemicals, cytological effects, griseofulvin 4282
- chemicals, general effects
  - aluminium 3248
  - ethionine 6246, 10663
  - glyphosate 3275
  - kanamycin 7817
  - lysine 10663
  - methionine 6246
  - streptomycin 7817
  - threonine 10663
- chemicals, mutagenic effects, ethyl
  - methanesulphonate 4282, 6246, 10663
- chromosomes, number 996, 3861, 9744
- cold resistance 450, 452, 1261, 3253, 3271, 5210, 7286, 7288
- cold resistance, technique 3249
- Colletotrichum* 1274, 3242, 3273, 5208, 5223, 6250, 6254
  - physiological races, USA 2227
- Colletotrichum*, technique 10666
- combining ability 447, 3268, 4279, 5209, 5214, 5217, 6251, 10658, 10659
- stem, number 10661
- competition 2216, 4279, 8954
- Corynebacterium* 453, 1274, 5210, 6249, 10656, 10665
- Corynebacterium*, technique 3272
- density of stand 7277, 7280, 8253, 8954
- development and growth 450, 1262, 3258, 9749
- digestibility 2216, 4277, 6869, 7279, 7280, 7281, 7285
- digestibility, technique 3243
- diploidy 3264, 6246
- Ditylenchus* 453, 455, 1274, 3242, 3276, 3872, 4291, 10656
- dormancy 3249
- embryo culture 5216
- Encyrtolophus* 3239
- epistasis 10667
- Eriophyes* 5225, 8956
- experimental designs 2213
- fertilization, sexual 8255
- flower, colour 7283
- flower, size 9749
- foliage area 4277
- fruit, size 9749
- fungi 2222, 8251
- Fusarium* 5210, 6253
  - gene dosage 4289
- genetic resources 3256, 3257
- genetic variance 7285
- genetics
  - leucine aminopeptidase 2218, 2219
- Meloidogyne* 4289
- peroxidase 2218, 2219
- Phytophthora* 10667, 10668
- sterility, male 447
- sterility, male, cytoplasmic 447
- sterility, self 3263
- tissue culture 2214
- geography 2218
- germination 1256, 2222, 3244
- germplasm banks 3256
  - Hungary 2181
- glands 4290
- grazing 2216, 3253
- growth period 447, 1261, 2216, 2223, 4278, 5215, 6245, 9749
- gynecium 5219
- habit 447, 4277, 6245, 9749
- hairs 4290
- hard seed 2222, 4300
- harvesting 3258
- heat and drought resistance 3269, 4279, 7274
- height 447, 3268, 9749, 10659
- heritability 445, 1268, 5209, 6251, 6253, 7281
- heterosis 447, 2215, 3251, 4279
- heterozygosis 3251
- history and evolution 996, 2210, 7850, 8257, 9750, 10209
- homozygosis 449



**Medicago contd.**

- humidity 446
- hybrid varieties 1265, 3263
- hybridization, interspecific 996, 2212, 2216, 3266, 3267, 8254
- hybridization, technique 8953
- Hypera* 4290
- Hypera*, technique 2230
- inbreeding 449, 1264, 2215, 3251, 3259, 4279, 10651
- inflorescence 3265
- inflorescence, number 8251
- insects, technique 2230
- irrigation 67, 438
- leaf, anatomy 3265
- Leptotrochila* 454
- light, effect of 3245
- lodging 1261, 1274
- Macroposthonia* 3276
- mechanical injury 1256
- meiosis 451, 3264
- Melanoplus* 3239
- Meloidogyne* 3276, 4289, 4291, 7287
- mixtures of crops or genotypes 7850
- mowing and cutting 1262, 6243, 7279, 7280
- multiple alleles 3251
- mutation, induced 4282, 6246
  - aminoacids 10663
- mycorrhiza 4285
- nectar 1257
- nitrogen fixation 444, 3247, 3252, 4287, 5221, 5222, 6249, 9751, 10664, 10665
- nitrogen fixation, technique 9745
- outcrossing 3255, 5208
- ovule, number 4283
- pathology 1275
- perennial habit 8257
- Peronospora* 1274
- persistence 1261, 3253, 6243
- Phoma* 1274
- photosynthesis 3265, 5215, 5222, 7276
- Phytophthora* 2228, 2229, 3274, 4288, 5210, 7287, 10656, 10667, 10668
- Phytophthora*, technique 8258
- plant introduction 2210
  - to Australia 4278
- pollen 2217, 3259, 3264, 5219
- pollination 447, 449, 1257, 8255, 8953
- pollination, technique 8256
- polyploidy 2209, 3251, 3264, 4290, 5215, 5221, 7275, 7276, 7850, 10662
- Pratylenchus* 3276
- protoplast fusion 7817
- protoplasts 2220, 7817
- Pseudopeziza* 1274, 7289
- Pythium* 8955
- quality 7279
- quality, for nutrition 1259, 1262, 1263, 1272, 2224, 6248, 7285
- quality, for nutrition, technique 3243
- Rhizobium* 3247, 3252, 4287, 5221, 5222, 6249, 9751, 10664, 10665
- physiological races 444, 2226, 3246
- Rhizoctonia* 5211
- root 445, 3247, 3252, 3269, 6247, 8253, 10659
- root, size 5220
- root, weight 6247
- salinity 68, 3270, 5790
- salinity, technique 3211
- Schistocerca* 3239
- seed 6242
- seed, colour 2222
- seed, number 2221
- seed production 445, 447, 1263, 1269, 2215, 2217, 2221, 3255, 4278, 9747
- seed production, technique 5208
- seed storage 3244
- seed, weight 2222
- selection, artificial 7285, 7289, 8954
- soil moisture 8253, 10659
- soil pH 3248, 3269, 9751, 9752
- stem, number 3268, 5217, 7277, 10661
- stem, size 9749
- stem, weight 6247
- sterility and fertility 446, 1267, 2217, 3259, 3266, 3267, 5219, 8255
- sterility and fertility, technique 5218
- sterility, male 446, 447
- sterility, male, cytoplasmic 447, 448, 451, 1265, 2221, 3245
- sterility, self 446, 1270, 3251, 3263

**Medicago contd.**

- synthetic varieties 1264, 2212, 4279, 5209
  - synthetic varieties, technique 10657
  - taxonomy 2219, 2225
    - book 996
  - temperature, effect of 446, 1267, 3245, 4300, 6245, 6250, 7286
  - Therioaphis* 2229, 2801, 3240, 3242, 5224, 6257, 6258, 10656
  - tissue culture 1258, 2214, 2220, 4286, 5790, 6246, 10660, 10662
  - toxic soils 3248
  - Uromyces* 1274, 6251
  - varieties
    - Australia 10654, 10655, 10656
    - Austria 3854
    - Canada 5213
    - Czechoslovakia 3855
    - Switzerland 3207
    - USA 3262
  - varieties, classification 1266, 2225
  - variety trials
    - Argentina 6244
    - Austria 4811
    - Belorussian SSR 8252
    - Brazil 4281
    - Canada 436, 437, 438, 439, 440, 441, 442, 443
    - Italy 7274
    - Kazakh SSR 2208, 9747, 10653
    - Turkmen SSR 3261
    - USA 10652
    - USSR 2212, 9748
    - Uzbek SSR 4280
    - Yugoslavia 5212
  - Verticillium* 6255, 7279
  - Verticillium*, technique 6252
  - viruses 1274
  - tissue culture 8689
  - viruses 1274
  - water balance 67, 5215
  - weight 10659
  - yield 7277
  - yield components 445, 1261, 1268, 4284, 5220
- Medicinal plants**
- germination 9902
  - tissue culture 8689
  - Megachile*, *Crotalaria* 2331
  - Megalurothrips*, *Vigna*, cowpea 1637
  - Meiosis 4784, 6834, 9388
    - Aegilops* 1069, 1873, 7866
    - Aegilops* × *Secale* 5974
    - Aegilops* × *Triticum* 1780, 1873, 3913, 3915, 7919, 10394
    - Agropyron* 2203, 2204, 3230, 3231, 3232, 4271, 5199, 7268, 7269, 8246, 9742
    - Agropyron* × *Elymus* 7269, 9741
    - Agropyron* × *Hordeum* 2025, 5199
    - Agropyron* × *Secale* × *Triticum* 10299
    - Agropyron* × *Sitanion* 7269
    - Agropyron* × *Triticum* 1772, 2891, 2895, 2903, 2904, 4851, 10307
    - Allium*, garlic 1527
    - Alopecurus* 4273
    - Arachis* 7508
    - Avena* 1898, 4823, 4928, 5956, 5963, 7866
    - Beta*, sugar beet 5327, 6382, 7420, 7421
    - Brassica* 8514
    - Brassica*, cauliflower 2613
    - Brassica*, rape 3454, 7837
    - Brassica*, sprouting broccoli 1544
    - Brassica*, turnip 6280
    - Cajanus* 6817
    - Capsicum* 1418, 8379, 9090, 10842
    - Cassia* 2455
    - Cicer* 11185
    - Coffea* 8354, 8355
    - Corchorus* 7399, 7401
    - crop plants 6845
    - Crotalaria* 10745
    - Cucumis* 2635
    - Cymbopogon* 2444, 9084
    - Cynodon* 5173
    - Dactylis* 4254
    - Elymus* × *Hordeum* 10244
    - Elymus* × *Triticum* 10244
    - Euchlaena* 244, 9598, 10513
    - Euchlaena* × *Zea*, maize 244, 1129
    - Festuca* 4264, 6227, 7261
    - Festuca* × *Lolium* 1252, 3223, 9388
    - forest trees 8458

**Meiosis contd.**

- Glycine* 2809, 4732, 7765, 7766, 8601
  - Gossypium* 1328, 2293, 4373, 6347, 7384, 9809, 10710
  - Gossypium* × *Hibiscus* 7379
  - Helianthus*, sunflower 2413
  - Hibiscus* 2325
  - Hordeum* 1045, 2025, 3102, 4090, 5033, 5199, 7866, 8102, 8105, 8107, 8844, 9604, 9605, 10538
  - Hordeum* × *Secale* 1045, 3098, 4087, 10533
  - Hordeum* × *Secale* × *Triticum* 1768, 1769, 7906
  - Hordeum* × *Triticum* 1045, 1774, 3900, 7865, 10244
  - Lilium* 15
  - Linum* 8311, 9013
  - Lolium* 5181, 8237
  - Lycopersicon* 58, 899, 923, 2639, 3710, 4639
  - Manihot* 3402
  - Matricaria* 3489
  - Medicago* 451, 3264
  - Morus* 732
  - Nicotiana* 5352, 6418, 10782
  - Oryza* 1212, 6147, 8167, 10599
    - review 2126
  - Panicum* 6111
  - Papaver* 6429, 8358
  - Pennisetum* 2065, 2066, 2067, 2070, 3135, 8129, 10561
  - Phaseolus* 9291, 11097, 11099
  - Phaseolus* × *Vigna*, cowpea 2686
  - Pisum* 6783, 10166
  - Poa* 10627
  - Poncirus* 726
  - Psophocarpus* 1609
  - Raphanus* 840, 9231, 10987
  - Ribes* 8424
  - Ribes*, black currant 743, 747
  - Ribes*, gooseberry 743
  - Ricinus* 634
  - Sansevieria* 2330
  - Secale* 232, 4939, 7866, 7998, 10417
  - Secale* × *Triticum* 132, 1887, 2900, 5943, 9513, 10296
  - Secale* × *Triticum*, triticale 58, 222, 1882, 1888, 2994, 2996, 2997, 3985, 3986, 4921, 5941, 5943, 5944, 6994, 6995, 7866, 7919, 7980, 10395
  - Solanum* 2456, 2457, 7599, 7600, 9998, 10845
  - Solanum*, egg plant 2657
  - Solanum*, potato 1307, 4327, 4339, 6304, 6310, 7836, 8282, 8971, 9385, 10687, 10688
  - Sorghastrum* 6238
  - Sorghum* 3144, 7137
  - Trichosanthes* 2633
  - Trifolium*, red clover 7294
  - Trigonella* 4315, 10682
  - Tripsacum* × *Zea*, maize 1951, 10445
  - Triticum* 58, 131, 132, 135, 138, 139, 1069, 1780, 1781, 1782, 1785, 2883, 2895, 2903, 2904, 2905, 2908, 3911, 3915, 4917, 5862, 6952, 7866, 7894, 7909, 7916, 7919, 7920, 7972, 8725, 9390, 10295, 10296, 10298, 10307, 10394
  - Vigna*, minor species 953, 2706, 9306
  - Vitis* 3610, 4566
  - Zea*, maize 251, 1955, 1956, 1957, 4968, 6017, 6019, 8032, 8034, 8808, 8809, 10455, 10457, 10458, 10459
- Meiosis, technique**
- Nicotiana* 2370
  - Pinus* 1509
- Melampsora**
- genetics, *Linum* 4398, 8315
  - Linum* 1354, 3375, 3379, 5313, 5314, 6364, 8312, 8313, 8314, 9016, 9828, 10733
  - physiological races 4398, 8315
  - Populus* 797, 4583, 9182
  - physiological races 6577
  - Melampsorella*, *Ricinus* 2406
- Melanagromyza**
- Glycine* 1645, 6748
  - Vigna*, minor species 1644, 2703, 6748
- Melanaphis**, *Sorghum* 4182
- Melanoplus**, *Medicago* 3239



**Melilotus**

- chemicals, as plant constituents
- cellulose 8267
- $\beta$ -glucosidase 8267
- o-hydroxycinnamic acid 8267
- lignin 8267
- chromosomes, number 9744
- genetics
  - $\beta$ -glucosidase 8267
  - o-hydroxycinnamic acid 8267
- salinity 2243
- variety trials
  - Kazakh SSR 2208
  - USSR 4303, 5235

**Meloidogyne**

- Capsicum* 4494
- physiological races 3487
- Cicer* 986, 7795
- Cucumis* 10977, 11036
- Cucumis*, cucumber 922, 10042, 10073
- Cucumis*, melon 10042
- Daucus* 4604, 10986
- Dioscorea*, physiological races 3874
- Eragrostis* 9739
- Glycine* 957, 973, 4743, 6751, 7777, 8613
- Gossypium* 552, 4391, 4392, 9820
- Hibiscus* 9834, 10739
- Ipomoea* 4820, 8299
- Lespedeza* 468
- Lycopersicon* 829, 923, 1560, 1643, 2638, 2639, 2651, 3721, 4637, 4657, 4820, 5633, 7714, 7720, 7721, 7722, 7723, 7724, 8561, 9283, 10042, 10082, 10980, 11056, 11058, 11063
- Manihot* 1634, 3397
- Medicago* 3276, 4289, 4291, 7287
- Musa* 4557
- Nicotiana* 620, 622, 2365, 3435, 3446, 4447, 4820, 7470, 7473, 8349, 8350
- physiological races 7468, 7469
- Oryza* 1237, 7224
- Phaseolus* 1636, 2699, 3874, 4695, 5648, 7749
- Piper* 2451
- Prunus*, peach 4533
- Psophocarpus* 4767
- Solanum*, egg plant 829
- Solanum*, potato 7347, 7348, 7349, 7350, 7352
- Vigna*, cowpea 933, 951, 4702, 5668
- Vigna*, minor species 933, 1644, 4709
- Vitis* 5502

**Meloidogyne, technique**

- Lycopersicon* 4658
- Nicotiana* 2378
- Phaseolus* 11079

**Melon (see Cucumis, melon)****Melon, water (see Citrullus)****Melothria, genetics** 2620**Mendelism (see Genetics)****Mentha**

- chemicals, as plant constituents
  - incanole 11195
  - isomenthone 4768
  - menthol 992, 2766, 2767
  - menthone 2766, 2767, 4768
  - oil, essential 992, 2767, 6823, 7802, 11195
  - piperitone 2767, 4768
  - pulegone 2766, 2767, 4768, 11195
- cold resistance 5715
- $\gamma$  rays 2766
- genetics
  - isomenthone 4768
  - menthone 4768
  - pulegone 4768
- germplasm banks, Ukrainian SSR 9903
- height 2766
- heterosis 7802
- hybridization, interspecific 992, 5715, 6823, 7802, 9339, 11194, 11195, 11196
- multiple alleles 4768
- mutation, induced 3860
- plant introduction
  - from Bulgaria 8652
  - to Ukrainian SSR 8652
- polyploidy 992, 4768, 6823, 9339
- Puccinia* 11196
- soil moisture 11194
- sterility and fertility 11194
- varieties
  - Bulgaria 10188, 10189

**Mentha contd.**

- varieties contd.
  - USSR 5715
- variety trials, Ukrainian SSR 8652
- X rays 2766
- Meromyza, Triticum* 1107
- Metasphaeria, Oryza* 8155
- Metaxenia* (see *Xenia*)
- Metopolophium**
  - Hordeum* 2865
  - Triticum* 1098
- Microcerotermes, Tectona* 8473
- Microcylus, Hevea* 3493, 4500
- Microdochium, Zea, maize* 9589, 9590
- Micronectriella**
  - Lolium* 7246, 8236, 8240, 10636
  - Poa* 6205
  - Triticum* 3965
- Micronectriella, technique, Secale** 4944
- Microsphaera**
  - Glycine* 5698, 8597, 8610
  - Ribes*, gooseberry 3592
- Microtus, Malus* 5431
- Migration** 5721, 5723, 5732
  - Cajanus* 4763
  - Cocos* 6525
  - Ipomoea* 2283
- Millet (see Echinochloa; Eleusine; Panicum; Pennisetum; Setaria)**
- Millets, quality, for nutrition, book** 5720
- Milling quality (see Quality, for milling and baking)**
- Mint (see Mentha)**
- Miscanthus**
  - genetic resources 7408
  - germplasm banks, USA 7408
- Mitochondria**
  - crop plants 3048
  - Glycine* 967
  - Hordeum* 7863
  - Oryza* 8164
  - Pisum* 6783
  - Secale* 77
  - Triticum* 77, 3916, 7863
  - Zea, maize* 77, 250, 281, 284, 285, 1975, 1976, 2008, 3036, 3048, 4971, 6028, 6029, 6042, 7052, 7863, 8043, 8061, 9532, 9557, 9561, 9591
- Mitochondria, size, Triticum** 1797
- Mitosis (see Cell division)**
- Mitotic recombination, Triticum** 131
- Mixoploidy**
  - Allium*, garlic 5562
  - Brassica*, cauliflower 2613
  - Camellia* 9869
  - Datura* 9350
  - Lotus* 10678
  - Malus* 5426, 7550
  - Oryza* 8674
  - Prunus*, cherry 4528
  - Ribes* 10916
  - Triticum* 2937
  - Vigna*, minor species 953
  - Vitis* 7612, 8439, 10934
  - Zea, maize* 8814
- Mixtures of crops or genotypes** 2789 (see also Competition)
  - Agropyron* 2201
  - Agrostis* 8228
  - Avena* 1109
  - Beta*, sugar beet 7850
  - cereals 5815
  - Chrysanthemum* 7850
  - Coffea* 10804
  - crop plants 1697, 4816, 7850, 9416
  - Dactylis* 6208
  - Festuca* 8228
  - Glycine* 1594, 3762, 3763
  - Gossypium* 4385, 10720
  - Helianthus*, sunflower 7850
  - Hordeum* 3125, 5053, 7850, 8870, 8871, 10241
  - Ipomoea* 7850
  - Lolium* 7252, 7850, 8228, 10636
  - Medicago* 7850
  - Oryza* 2842, 7850
  - Phalaris* 6229
  - Phleum* 6216
  - Poa* 8228, 9721
  - Populus* 7850
  - Secale* 7850
  - Solanum*, potato 7850
  - Sorghum* 10577

**Mixtures of crops or genotypes contd.**

- Thuja* 7850
- Trifolium*, red clover 10672
- Trifolium*, white clover 8223
- Triticum* 1729, 1762, 4816, 6934, 7850, 7950, 10269, 10358
- Vigna*, cowpea 7751
- Zea, maize* 7850
- Modifiers** 2775
  - Asparagus* 3838
  - Avena* 10405
  - Daucus* 5546
  - Hordeum* 5037, 8868
  - Oryza* 5128, 6185
  - Ricinus* 4468
  - Sorghum*, lysine 9644
  - Triticum* 1080, 3922, 4861, 7893
  - Zea, maize* 270, 1959, 1974, 1985, 1989, 4012, 4016, 4955, 4956, 4958, 4961, 6001, 6012, 6027
  - embryo 8807
  - lysine 9579
  - seed 8807
  - zein 9579
  - Zea*, sweet corn 3084
- Molecular genetics** 6843, 9344, 9346, 9393, 9394, 10199
  - Aegilops* 5806, 8729
  - Allium*, onion 10049
  - Atriplex* 7729, 7730
  - Avena* 2857, 4824
  - Beta*, sugar beet 2341
  - crop plants 9395
  - review 8
  - Daucus* 6599
  - Euchlaena* 9531, 10438
  - Euchlaena*  $\times$  *Zea, maize* 8022
  - Glycine* 2719, 7763, 7770, 8604
  - Gossypium* 5282, 7381
  - Hordeum* 2857, 4084, 4824, 5806, 6081
  - Petroselinum* 6599
  - Pisum* 57
  - review 7811
  - Rhizobium* 3236
  - Secale* 3014, 4824
  - Secale*  $\times$  *Triticum*, triticales 8729
  - Spinacia* 57, 7729, 7730
  - Triticum* 114, 1070, 4824, 5806, 5850, 8729, 10261, 10262
  - Vigna*, minor species 57
  - Zea, maize* 1943, 4971, 5996, 7051, 9531, 9532, 10432, 10438
- Momordica**
  - chemicals, as plant constituents
    - ascorbic acid 10074
    - iron 10074
    - phosphorus 10074
    - potassium 10074
    - protein 10074
  - chromosomes, number 9256
  - combining ability, yield components 11039
  - flower 1551
  - flowering 1551
  - genetic variance
    - ascorbic acid 10074
    - iron 10074
    - phosphorus 10074
    - potassium 10074
    - protein 10074
    - yield components 11039
  - genetics 2620
  - heritability
    - ascorbic acid 10074
    - iron 10074
    - phosphorus 10074
    - potassium 10074
    - protein 10074
  - history and evolution 9256
  - pollen 1551
  - yield components 2634, 11039
- Monilinia (see Sclerotinia)**
- Moniliophthora, Theobroma** 4451
- Monogerm seed balls, Beta, sugar beet** 576, 1367, 2342, 3388, 3394, 6378, 6379, 6392, 7419, 8323, 9842, 10763
- Mononychellus, Manihot** 1634, 3416, 8329
- Monoploidy (see Haploidy)**
- Monosomic analysis (see Gene location)**
- Monosomics (see Aneuploidy)**
- Moricandia**
  - germination 3665
  - hybridization, interspecific 3665



**Moricandia contd.**

- sterility and fertility 3665  
*Moringa*, varieties, India 10087

**Morphology**

- Agropyron* 4242  
*Bromus* 4242  
*Collybia* 3801  
*Festuca* 4242

**Morus**

- breeding, USSR 730  
 chemicals, as nutrients, iron 9139  
 chemicals, as plant constituents  
   acids 3580  
     aminoacids 6520  
     ascorbic acid 3580  
     aspartic acid 8418  
     calcium 4539  
     carbohydrates 6520  
     dehydrogenases 6520  
     esterase 6520  
     glycine 8418  
     isoleucine 8418  
     nitrogen 9974  
     nucleic acids 731  
     oil, fatty 9974  
     peroxidase 8418  
     phenylalanine 8418  
     phosphorus 4539  
     potassium 4539  
     protein 6520, 9974  
     serine 8418  
     sugar 3580  
     threonine 8418  
 chemicals, fertility and sex, effects,  
   ethephon 733  
 chemicals, mutagenic effects,  
   miscellaneous 9973  
 chromosomes, number 3577, 3578  
 cold, effect of 732  
 cold resistance 732, 6521  
 development and growth 734, 2511  
 flower, number 7569  
 fruit, size 3580  
*Fusarium* 4540  
 $\gamma$  rays 2511  
 genetics, peroxidase 8418  
 germination 9138  
 habit 9137  
 hybridization 734  
 hybridization, interspecific 2511, 3577,  
   3578  
 inflorescence, size 7569  
 leaf, number 6521  
 leaf, shape 1465, 6521  
 leaf, size 734, 3579, 9137  
 leaf, weight 3579  
 meiosis 732  
 mutation, induced 9973  
 mycoplasmas 2513  
 ovule 732  
 polyploidy 731, 732, 2511, 2513, 3577,  
   3578, 3579, 3580, 4539, 6520, 7569,  
   9137, 9138, 9974  
*Pseudomonas* 10892  
 salinity 2512  
 seed, moisture 9974  
 seed, number 9974  
 seed production 9138  
 seed, weight 9138, 9974  
 sex 730, 733, 2511, 7569  
 sterility and fertility 7569  
 varieties  
   France 1464  
   S. Korea 4538  
**Mowing and cutting**  
*Dactylis* 9722, 9723  
*Festuca* 8948  
*Lolium* 4261  
*Medicago* 1262, 6243, 7279, 7280  
*Oryza* 342  
*Phalaris* 6229  
*Poa* 9721  
*Trifolium*, red clover 2234  
*Trifolium*, subterranean clover 6266  
*Trifolium*, white clover 1284  
*Mucor*, *Zea*, maize 9590  
*Mucuna*, taxonomy 10683  
**Mulberry** (see *Morus*)  
**Multiline varieties** (see Composite varieties)  
**Multiple alleles** 4781  
   *Aegilops* 3955  
   *Agaricus* 1518  
   *Brassica*, cauliflower 1543

**Multiple alleles contd.**

- Brassica*, oil crops  
   sterility and fertility 8361  
   sterility, self 8361  
*Brassica*, swede 7834  
*Camellia* 4448  
*Capsicum* 7520  
   viruses 10969  
*Coffea* 8356  
*Dactylis* 418  
*Fagus* 6579  
*Festuca* 427  
*Fragaria*, phosphoglucosomerase 9146  
*Hordeum*, *Erysiphe* 8868  
*Ipomoea* 5271  
*Lolium* 3221  
*Medicago* 3251  
*Mentha* 4768  
*Oryza* 5125, 6153  
*Pinus*  
   enzymes 10036  
   peroxidase 10032  
   phosphoglucosomase 10032  
*Pseudotsuga*, enzymes 9207  
*Raphanus* 843  
*Solanum*, potato  
   alkaline phosphatase 7316  
   phosphoglucose isomerase 7316  
*Sorghum*  
   leaf, colour 8880  
   lignin 8880  
*Triticum* 1080, 1795, 3955  
*Zea*, maize 4012, 9562, 10463  
   malate dehydrogenase 9563  
**Multiple genes** 999, 5734  
*Beta*, sugar beet 3396  
*Brassica*, oil crops 1399  
*Cucumis*, cucumber 7694, 8531  
*Hibiscus*  
   leaf, colour 9019  
   stem, colour 9019  
*Hordeum* 8076, 8087  
*Lolium*, anthocyanins 8237  
*Nicotiana* 604  
*Oryza* 387  
*Pisum* 7783  
*Raphanus*, sterility and fertility 10208  
*Rubus*, raspberry 2522  
*Secale* 7015  
   protein 8003  
*Solanum*, potato 5254  
*Sorghum*  
   awns 9641  
   hairs 9641  
   spikelets 9641  
   spikelets, colour 9641  
*Triticum* 1080, 2918, 3922, 3971  
*Vigna*, minor species 7757  
*Zea*, maize 4012, 4963, 4979, 9562,  
   10463  
   nucleic acids 8020  
   *Setosphaeria* 8021  
**Multivariate analysis** 4775  
*Abies* 7646  
*Aegilops* 7930  
*Brassica*, oil crops 4461  
*Cajanus* 9338  
*Capsicum* 9908  
*Carthamus* 7497  
*Cicer* 4758  
*Corchorus* 10736  
 crop plants 59, 5767, 7845  
*Cyamopsis* 1292  
*Festuca* 9736  
*Hordeum* 4079, 8857, 9608  
*Lens* 9334  
*Linum* 9826  
*Lycopersicon* 11049  
*Macrotyloma* 2758  
*Oryza* 4204, 7206  
*Phleum* 8941  
*Rubus*, raspberry 9978  
*Secale*  $\times$  *Triticum*, triticales 6992  
*Solanum*, potato 3314, 3315  
*Sorghum* 3155, 10573  
*Stylosanthes* 5767  
*Trachyspermum* 2770  
*Triticum* 1075, 4846, 4873, 5848, 5853,  
   5883, 7930, 9451, 10319  
*Urochloa* 5767  
*Vigna*, cowpea 9300  
*Vitis* 5494  
*Zea*, maize 1997

**Musa**

- chemicals, as plant constituents  
   nitrogen 1480  
   sugar 1480  
 chemicals, general effects, potassium  
   dihydrogen phosphate 2532  
*Cosmopolites* 7597  
*Frankliniella* 7597  
 fruit, size 2532  
 fruit, weight 2532  
*Fusarium* 5482, 5483  
 genetic resources 9404  
 germplasm banks  
   Malaya 2531  
   Thailand 2531  
 height 3605  
 heritability 3605  
 hybridization, interspecific 762  
*Meloidogyne* 4557  
*Mycosphaerella* 4556  
 polyploidy 763, 7597  
 quality, for nutrition 1480  
 quality, for storage 763  
*Radopholus* 4557  
 ripening 2532  
 root, number 3605  
 seedlessness 2467  
 vegetative reproduction 762  
 yield components 3605, 9996  
**Mushroom** (see *Agaricus*)  
**Musk melon** (see *Cucumis*, melon)  
**Mustard** (see *Brassica*, oil crops; *Sinapis*)  
**Mutation** 14, 1006, 1613, 1616, 2837, 2839,  
   4779, 9343, 10201  
*Agropyron*  $\times$  *Triticum* 122, 6865  
*Arachis* 10237  
 book 9347  
*Brassica*, oil crops 5371  
*Brassica*, rape 4456  
*Cajanus* 6816  
   leaf, size 7798  
*Carthamus* 2425  
*Citrus* 2501, 5452, 6517, 7567, 9956  
*Citrus*, lemon, *Deuterophoma* 9953  
*Citrus*, lime, spines 9134  
*Citrus*, mandarin 2509, 9406  
   seasonal growth 9131  
*Citrus*, tangerine 5457  
 crop plants 1013, 9347, 10230  
   chlorophyll 10226  
   crossing over, review 8666  
   meiosis, review 8666  
   review 6865  
*Cucumis*, cucumber 883, 4633  
   corolla 11023  
   fruit, shape 11023  
   hairs 11026  
   leaf, size 11024  
   sterility, male 11023  
*Cucumis*, melon  
   chlorophyll 11006  
   hairs 11006  
*Cucurbita* 873  
*Erysiphe* 6104  
*Fagopyrum* 4229  
 forest trees 2561  
*Fragaria* 1478, 6534  
 fruit crops 6865  
*Glycine* 1584, 8600, 8605  
   chlorophyll 9314  
*Gossypium* 2296, 2303, 4377, 5287,  
   7378, 7388  
   colour 10717  
   flower 9001  
   fuzz 10717  
   habit 10717  
   leaf 10717  
   leaf, shape 10717  
*Hordeum* 311, 1030, 1031, 1035, 1036,  
   1676, 2044, 2049, 3104, 3110, 6084,  
   7081, 8082, 8083, 8089, 8091, 10237  
   awns 9601  
   chlorophyll 8084, 9601  
   chloroplasts 10536  
   gynecium 8074  
   lysine 8079, 10543  
   necrotic leaf spotting 8088  
   photosynthesis 7091  
   protein 8863  
   seed, size 9601  
   sterility, male 8851  
*Ipomoea* 4364  
*Laminaria* 4771



**Mutation contd.**

- Lespedeza* 469  
*Lotus* 7273  
*Luffa* 3704  
*Lupinus* 7273  
*Lycopersicon* 14, 916, 2641, 2647, 3709, 6652, 9271, 10237  
 flower, number 9266  
 photosynthesis 11051  
 ripening 11061  
*Malus* 6486, 10863  
 fruit, colour 10863  
*Nicotiana* 604, 606, 607, 2363, 4433, 5344, 5345, 7443, 10778  
 chlorophyll 8338  
*p*-fluorophenylalanine 10793  
 photorespiration 9856, 9857  
*Oryza* 2124, 8177  
 height 8163  
 phosphorus 10609  
 potassium 10609  
 protein 10609  
*Pennisetum* 6114  
 alcohol dehydrogenase 8128  
*Pisum* 1600, 1676, 2742, 3779, 3839, 4746, 5702, 6781, 7783, 11179  
 chlorophyll 10165  
 foliage area 10169  
 height 9326  
 photosynthesis 10169  
 protein 10175  
*Prunus*, cherry 2492, 6507, 8404  
*Pseudomonas* 2383  
*Raphanus* 1525  
*Rhizobium* 463  
*Solanum*, potato 2262, 4337, 4339, 7333, 10237  
 tuber, colour 9777  
*Sorghum* 1030, 1036, 2084, 4146, 4150, 6121, 7136  
 leaf 8136  
 lignin 8136  
*Trifolium*, white clover 463, 7273  
*Triticum* 14, 129, 1729, 1779, 3915, 6865, 6889, 7919, 9431, 10306  
 alcohol dehydrogenase 10303  
 hairs 8764  
 meiosis 10296  
 sterility, male 7901  
*Ustilago* 8764, 9484  
*Vitis* 6554  
*Zea*, maize 253, 1030, 1032, 1034, 1036, 1953, 1984, 1985, 1986, 1990, 3038, 3039, 3043, 3059, 4014, 4024, 4032, 4033, 4053, 4953, 4955, 4957, 4958, 4959, 4961, 4967, 4981, 5999, 6009, 6011, 6012, 6035, 7034, 7043, 7044, 7062, 7068, 8019, 8028, 8029, 8036, 10428, 10434, 10447, 10448  
 alcohol dehydrogenase 10440, 10479  
 anthocyanins 8031  
 book 263  
 carotenoids 8031  
 chlorophyll 9535, 10477  
 colour 9536  
 embryo 8031  
 habit 8030  
 inflorescence 8030, 9571  
 leaf 9536  
 meiosis 8032  
 metabolites 8811  
 mitochondria 8061  
 photosynthesis 9568, 9569  
 seed, size 8799  
 seed, variegation 10449  
 thiamine 8811
- Mutation, back, *Hordeum*** 8098  
**Mutation, induced** 1005, 1006, 4788, 9348  
 (see also Chromosomes, aberrations)  
*Acca* 2465, 10216  
 review 2814  
*Agropyron* × *Triticum* 5854  
*Allium*, onion 8510  
 foliage area 9234  
 photosynthesis 9234  
*Alnus*, book 9174  
*Amaranthus* 1564  
*Apium* 3692  
*Arachis* 1414, 5392, 6458  
*Avena* 227, 1901, 3002, 3994, 4929  
*Puccinia* 10409  
*Beta* 10981

**Mutation, induced contd.**

- Beta*, sugar beet 2347, 2348, 6380, 6390, 7419  
*Brassica* 7673  
*Brassica*, oil crops 633, 1397, 1398, 4455, 9059  
 growth period 9057  
 height 9057  
 seed, colour 10811  
*Brassica*, rape 3462  
*Cajanus* 1608, 4761  
*Camellia* 1677, 2391, 2393, 9406, 9866  
*Capsicum* 1417, 1521, 7521, 7522, 7846  
 anthocyanins 8377  
 carotene 9089  
 fruit, number 9089  
 fruit, size 9089  
 height 9089  
 sterility, male 10841  
 sterility, male, cytoplasmic 10841  
 cereals 1029, 1046  
 book 6866  
*Chaenomeles* 2485  
*Cicer* 985, 986, 2748, 2749, 7731, 7792, 8622  
*Citrus* 1677  
 review 2814  
*Citrus*, lemon 2502, 2503, 9406, 10216  
*Citrus*, mandarin 2502, 2503, 10216  
*Citrus*, orange 2502, 2503, 9406  
*Corchorus* 5780, 6366, 7399  
 growth period 8316  
 habit 8317  
 leaf, size 8317  
 photoperiodism 8316  
*Coriandrum*, oil, essential 11200  
*Corylus* 3619  
 crop plants 14, 64, 294, 1020, 1624, 1625, 3820, 4364, 9347, 9359, 9381  
 book 6866  
 crossing over, review 8666  
 meiosis, review 8666  
 review 2814  
 symposium 5780  
*Crotalaria* 10745  
 chromosome translocation 10745  
*Cucumis*, cucumber 886, 10981  
 corolla, shape 11028  
 leaf, shape 11028  
*Cuphea* 4490, 4491  
*Cymbopogon* 2445, 3484, 4493, 6461  
*Datura* 8381  
*Daucus* 10981  
*Eleusine* 2074  
*Elymus*, awns, length 10647  
*Fagopyrum* 408  
 growth period 9716  
 inflorescence 9716  
*Festuca* 7229  
 chlorophyll 10638  
*Festuca* × *Lolium* 1247  
*Ficus* 2465  
 review 2814  
 forest trees 2561  
*Fragaria* 676, 3601  
 review 2814  
*Fraxinus*, book 9174  
*Glycine* 959, 965, 966, 969, 1584, 5685, 5689, 6755, 7764, 7847, 8599, 10137, 11140  
 habit 11138  
*Gossypium* 544, 545, 546, 547, 550, 1341, 1342, 1348, 2300, 2743, 3340, 3350, 3354, 3359, 4375, 5295, 5300, 6349, 6351, 6354, 7367, 7368, 7369, 7374, 7383, 7846, 8304, 8996, 9817, 10708  
 fruit, weight 9004  
 growth period 9004  
 quality, of fibre 9004  
*Helianthus*, sunflower 2418, 6445  
 habit 9883  
*Heracleum*  
 bergapten 9767  
 xanthotoxin 9767  
*Hibiscus* 7403  
 chlorophyll 8318

**Mutation, induced contd.**

- Hordeum* 89, 294, 296, 297, 299, 300, 302, 314, 1007, 1029, 1147, 1148, 1165, 1626, 1678, 1718, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2041, 2046, 3101, 3112, 3116, 3117, 4089, 4105, 5028, 5029, 5030, 5031, 6107, 7092, 7093, 7094, 7095, 7096, 7114, 7832, 8091, 8096, 8098, 8839  
 asynapsis 8106  
 awns, colour 10544  
 awns, size 8092  
 book 298, 6866  
 chlorophyll 8840, 10534, 10535, 10537  
 development and growth 8841  
*Erysiphe* 8868  
 gynecium 8116  
 inflorescence 10542  
 inflorescence, colour 10544  
 inflorescence, number 8113  
 leaf, colour 10544  
 nitrate reductase 10532  
 protein 9602  
 seed, shape 8088  
 viruses 9618  
 yield components 8117  
*Hyoscyamus* 6830  
*Lablab* 989  
*Lactuca* 10981  
*Lathyrus* 1295, 7731, 8961  
 seed, colour 8961  
 sterility, male 8962  
*Lens* 4759, 9333  
 habit 10184  
 inflorescence 10184  
 sterility and fertility 10184  
*Lespedeza* 7846  
 corolla 9758  
*Lotus* 472  
*Lupinus* 3293, 8958  
 growth period 9759  
*Lycopersicon* 900, 903, 1521, 2642, 3708, 6652, 7705, 10077, 10981  
 corolla 9267  
 determinate and indeterminate habit 9267  
 fruit, weight 9267  
 growth period 9267  
 polyploidy 9267  
 sterility, male 9267  
 \**Macropitilium* 3724  
*Malus* 1437, 2470, 2471, 2473, 2474, 2480, 4510, 7547, 7553, 9101  
*Medicago* 4282, 6246  
 aminoacids 10663  
*Mentha* 3860  
*Morus* 9973  
*Nicotiana* 610, 1375, 1678, 2376, 4432, 6404, 7442, 8336, 8337, 9035, 9042  
*Peronospora* 10782  
*Thielaviopsis* 10782  
 viruses 10782  
*Olea* 9101  
*Oryza* 347, 358, 359, 1197, 1208, 1211, 1214, 1215, 1216, 1217, 1223, 1225, 1230, 2123, 2125, 2126, 2142, 2145, 2833, 2835, 2846, 3179, 3860, 4198, 4199, 4200, 4227, 5121, 5124, 5131, 5780, 6137, 6148, 6149, 6165, 6185, 7185, 7186, 7187, 8160, 8162, 8167, 8192, 10592  
 awns 9667  
 chlorophyll 10598, 10607  
 growth period 9667, 9668  
 height 9667, 9668, 9690  
 leaf, shape 9667  
 review 3177  
 seed, size 9667  
 spikelets, number 9667  
 sterility, male 10607  
*Panicum*  
 height 8873  
 inflorescence 8873  
 inflorescence, length 8873  
 internode, length 8873  
 seed, colour 8873  
 seed, shape 8873  
 sterility and fertility 8873  
*Phaseolus* 1571, 1572, 1573, 3735, 5653, 6709, 6710, 9293, 9294  
 chlorophyll 9292, 11098  
 height 9292  
 leaf 9292



**Mutation, induced contd.**

- Phaseolus* contd.  
protein 11103  
*Picea*, book 9174  
*Pinus*, book 9174  
*Pistacia* 2465  
*Pisum* 981, 1603, 2742, 3776, 3860, 4749, 6782, 6787, 9324, 10981, 11180  
growth period 9325  
habit 11178  
protein 10174  
seed, number 9325  
stem, number 11178  
*Poa* 2186  
*Populus* 3860, 7630  
*Prunus*, almond 2465, 2559  
review 2814  
*Prunus*, cherry 1425, 2493, 2494, 2495, 2496, 3837, 9101  
height 9120  
seasonal growth 9120  
*Prunus*, peach 9101  
*Psophocarpus* 6796  
*Puccinia* 7959  
pulses 5780  
*Punica* 2465  
review 2814  
*Quercus*, book 9174  
*Raphanus* 9228, 10981  
review 5739  
*Ribes*, black currant 2524  
development and growth 10915  
*Ribes*, black currant  $\times$  *Ribes*, gooseberry 676  
*Ricinus* 1407, 7846  
*Saccharum* 3385, 5780, 6374  
*Secale* 235  
height 8003, 8789  
protein 8789  
*Secale*  $\times$  *Triticum*, triticales 222, 2995, 7977  
*Sesamum* 4469, 6441, 8366  
fruit, size 10816  
*Solanum* 1421  
*Solanum*, egg plant  
fruit, number 11069  
fruit, size 11069  
*Solanum*, potato 4788, 5252  
book 5250, 6866  
protein 8979  
*Sorghum* 1029, 2089, 4138, 4142, 5076  
leaf, colour 8880, 9644  
lignin 8880  
protein 9644  
*Stenotaphrum* 1254, 5206  
*Tilia*, book 9174  
*Triticum* 128, 130, 131, 138, 139, 144, 145, 149, 159, 163, 169, 177, 178, 183, 195, 206, 1029, 1068, 1085, 1678, 1718, 1777, 1778, 1785, 1797, 1812, 1841, 2885, 2901, 2917, 4840, 4853, 4854, 4866, 4872, 4879, 5858, 5859, 5860, 5861, 5879, 6890, 6922, 7846, 7879, 7886, 7910, 7920, 7921, 8723, 8734, 9453, 9454, 10293  
awns 8736  
chlorophyll 10245  
cold resistance 8737, 10304, 10305, 10312, 10362  
gluten 10302  
growth period 10311  
heat and drought resistance 10311  
height 7927, 10305, 10311, 10312, 10362  
inflorescence 7926, 8736, 10302  
lodging 10302  
meiosis 10307  
protein 10302, 10304  
quality, for milling and baking 8735  
root, number 10311  
seed, colour 8736  
yield components 10311, 10312  
*Vicia*, broad bean 936, 938, 2681  
*Vigna*, cowpea 3724  
yield components 10114  
*Vigna*, minor species 2706, 2708, 3744, 4703, 4706, 6742, 6744, 7731  
chlorophyll 10120, 10122  
fruit, number 8593  
growth period 10122, 11116  
habit 10120  
height 10122  
leaf 10120

**Mutation, induced contd.**

- Vitis* 2544, 2554, 9101, 10934  
ascorbic acid 10009  
fruit, size 10009  
germination 10009  
quality 10009  
quality, for transport 10009  
*Zea*, maize 264, 1029, 1124, 1678, 1957, 2833, 2834, 4953, 6007, 6008, 6010, 6063, 7044, 7067, 7847, 8792, 9537, 9546, 9547, 10451  
chlorophyll 10245  
embryo 8807  
flowering 10478  
growth period 9548, 10478  
leaf 9521  
seed 8807, 10450  
zein 10452

**Mutation, induced, technique**

- crop plants 3859  
*Rosa* 10835  
*Vicia*, broad bean 935

**Mutation, technique, *Hordeum* 8095****Mycoplasmas**

- Capsicum* 824  
*Euchlaena* 2013  
*Lycopersicon* 824  
*Malus* 8385  
*Morus* 2513  
*Oryza* 391, 2175, 8157, 8218  
*Pyrus* 8385  
*Solanum*, egg plant 2657, 9286  
*Solanum*, potato 5267  
*Ulmus* 3629  
*Zea*, maize 2013  
*Zea*, sweet corn 2013

**Mycorrhiza**

- Betula* 4585  
*Medicago* 4285  
*Nicotiana* 10788  
*Trifolium*, white clover 8264  
*Triticum* 160, 6951

**Mycosphaerella**

- Arachis* 1412, 1416, 2795, 3480, 3481, 7507, 9080  
*Brassica* 5575  
*Fragaria* 9995  
*Larix* 7649, 7650, 7651, 8490  
*Musa* 4556  
*Pisum* 2829  
*Pyrus* 6491  
*Zea*, maize 3077, 8043

**Mycosphaerella, technique, *Arachis* 3480****Myrothamnus, chromosomes, number 1391****Myzus**

- Beta*, sugar beet 9413  
*Lactuca* 7678, 10975  
*Lycopersicon* 2653  
*Nicotiana* 7471, 7472  
*Prunus*, peach 3564, 5449  
*Solanum*, potato 499, 516, 5265  
physiological races 5264

**Myzus, technique, *Solanum*, potato 516, 6335****Naked grain**

- Hordeum* 2051, 2852, 5024, 5025, 6094, 7106, 8074, 9612, 10516, 10547  
*Oryza*  $\times$  *Triticum* 4196

**Nasonovia, *Lactuca* 6631, 10975****Necrotic leaf spotting, *Hordeum* 8088****Nectar**

- Brassica*, rape 9058  
*Citrus*, grapefruit  $\times$  *Poncirus* 726  
*Citrus*, lemon  $\times$  *Poncirus* 726  
*Citrus*, mandarin  $\times$  *Poncirus* 726  
*Citrus*, orange  $\times$  *Poncirus* 726  
*Citrus*, pomelo  $\times$  *Poncirus* 726  
*Fagopyrum* 410  
*Fortunella*  $\times$  *Poncirus* 726  
*Gossypium* 528, 540, 2807, 6356, 8308, 9802  
*Medicago* 1257  
*Trifolium*, red clover 1257, 2233

**Nectarine (see *Prunus*, nectarine)****Nectria**

- Lupinus* 55  
*Solanum*, potato 1317  
**Nectria, technique, *Solanum*, potato 509**

**Nematodes**

- Agropyron*  $\times$  *Triticum* 8733  
*Beta*, sugar beet 3396  
crop plants 4364, 4365  
bibliography 3873

**Nematodes contd.**

- crop plants contd.  
physiological races 4365  
*Ipomoea* 4364, 4365  
physiological races 4365  
*Lycopersicon* 827, 1521  
*Solanum*, potato 491, 1323, 4334, 9793  
*Zea*, maize 1921  
*Nematospora*, *Glycine* 11166  
*Nepheleum*, litchi, varieties, India 10894  
*Nephotettix*  
*Oryza* 3199, 8155, 8211, 8218, 9699  
physiological races  
Bangladesh 9712  
Philippines 9712

**Neutrons**

- Avena* 227, 3002  
*Brassica*, oil crops 9057  
*Cicer* 986  
*Corchorus* 8316  
*Eleusine* 2074  
*Glycine* 965, 969, 2723, 11138, 11139  
*Gossypium* 3360  
*Hordeum* 314, 2034, 7092, 8108, 10534  
*Lycopersicon* 904  
*Malus* 2471  
*Oryza* 2835, 6149  
*Phaseolus* 1572, 9294, 11098  
*Pisum* 11178, 11180  
*Ricinus* 1407  
*Triticum* 149, 4853, 7969  
*Vicia*, broad bean 935  
*Vigna*, minor species 8593  
*Zea*, maize 9548

**New Hebrides disease, *Cocos* 8420****Nezara**

- Citrus*, orange 2507  
*Glycine* 2738, 10153, 11175

**Nicotiana**

- Acaulospora* 10788  
*Agrobacterium* 10199  
physiological races 6412  
*Alternaria* 4443  
*Alternaria*, technique 2378  
andrecium 5340  
aneuploidy 2369, 5344, 5346, 6405, 6411, 8340, 8342, 10782  
aneuploidy, technique 2370  
anther culture 1376, 1377, 1680, 2365, 2373, 2376, 2379, 3423, 3427, 3434, 3435, 4436, 4439, 4440, 4441, 5352, 5353, 6405, 6406, 6413, 6848, 7442, 7448, 7452, 8330, 8342, 8344, 9037, 9854, 9860, 10784, 10790, 10794, 10812  
apomixis 23, 10777  
back crossing 6411  
bacteria 10796  
book 10194  
botany, review 2369  
breeding  
Canada 7432  
Indonesia 9850  
Taiwan 2361  
USA 583, 5339  
cell, colour 2363  
cell culture 594, 606, 2363, 8337, 8338, 9038, 9042, 10199, 10793  
cell division 10783  
cell division, technique 2370  
*Cercospora*, technique 2378  
chemicals, as nutrients  
aluminium 4437  
aminoacids 2376  
manganese 4437  
nitrogen 613, 5356, 7459, 7460, 8346  
phosphorus 613, 5356, 7459, 7460  
potassium 613, 5356, 7459, 7460  
chemicals, as plant constituents  
adenosine triphosphatase 8332  
alanine 8345  
alkaloids 608, 609, 3435, 4439, 5347, 7447, 8346, 10771, 10772  
alkaloids, technique 2381  
alkanes 6419  
alkylating agents 612  
aluminium 4437  
aminoacids 8345  
anabasin 1016  
aspartate transaminase 8340, 8343  
auxins 6412  
carotenoids 598  
chlorogenic acid 7454



*Nicotiana* contd.

- chemicals, as plant constituents contd.  
 chlorophyll 597, 598, 607, 1368, 1369, 3429, 3430, 5342, 5344, 5345, 5346, 5350, 7445, 7817, 8334, 8338, 8339, 8343  
 cholesterol 598  
 chromatin 10783  
*m*-cresol 8346  
*o*-cresol 8346  
*p*-cresol 8346  
 cresols 608, 609  
 cytochrome c reductase 10779  
 cytokinins 6412  
 docosanol 2380  
 duvatrienediols 6419  
 esterase 3432, 8340, 8343  
 flavin adenine dinucleotide 10779  
 2-furfural 9861  
 glucosidase 3439  
 glycerol 9861  
 glycine 8345  
 glycine decarboxylase 8345  
 hydrocarbons 2380  
 5-hydroxymethylfurfural 9861  
 manganese 4437  
 5-methylfurfural 9861  
*N*-methylputrescine oxidase 7456  
 $\beta$ -methylvaleric acid 9861  
 myosmine 9861  
 NADH 10779  
 neophytadiene 2380  
 nicotine 608, 609, 610, 1016, 2380, 3420, 3438, 4431, 6406, 6414, 6420, 7436, 7440, 7456, 7457, 7462, 8346, 9862, 9863  
 nicotine, technique 2381  
 nicotyrine 1016  
 nitrate 8346  
 nitrate reductase 2363, 10779  
 nitrite reductase 2363, 10779  
 nitrogen 7462  
 nitrogen, technique 2381  
 nopaline 6412  
 nucleic acids 2366, 2808, 7443, 8331, 10791  
 octopine 6412  
 oil, essential 9859  
 oil, fatty 598  
 peroxidase 599, 2363, 3431, 3432, 3437, 4434, 6410, 10789  
 phenols 608, 609, 2363, 5350, 7454, 8346  
 phenols, technique 2381  
 phenylalanine 8337  
 phenylalanine ammonia lyase 2363  
 phytol 2380  
 polyphenols 3445  
 potassium 7462  
 protease 8692  
 protein 614, 3432, 4444, 6410, 6414, 8341, 9036  
 putrescine *N*-methyltransferase 7456  
 quinolinic acid phosphoribosyltransferase 7456  
 ribulose 1,5-diphosphate carboxylase 2369, 6407, 607, 1381, 10262, 10790  
 rutin 7454  
 serine 8345  
 solanesol 2380  
 solanesol, technique 597  
 starch 1368, 1369, 6944  
 sterols 598, 2380  
 sterols, technique 2381  
 sugar 1368, 1369, 3420, 6420, 6944, 7447  
 sugar, technique 2381  
 superoxide dismutase 8340, 8343  
 tar 596, 608, 609, 3438, 7455, 8346  
 terpenoids 611, 2380  
 xanthine dehydrogenase 10779
- chemicals, cytological effects, cytokinins 2364
- chemicals, general effects  
 8-azaguanine 1016  
 calcium chloride 590  
 charcoal 1680  
 chelates 1680  
 chloramphenicol 10792  
 DMSO 6848  
 ethephon 7447  
*p*-fluorophenylalanine 8337, 10793  
 glycerol 6848

*Nicotiana* contd.

- chemicals, general effects contd.  
 glycine hydroxamate 8345  
 IAA 7444  
 iron 1377  
 isonicotinic acid hydrazide 4432  
 kanamycin 7817, 9039  
 kinetin 7444  
 nitrogen 7447, 10794  
 oxygen 10794  
 ozone 7459, 7460  
 picloram 4433  
 sodium chloride 9038  
 streptomycin 1016, 7817, 8331, 8337, 10789  
 sucrose 8348  
 tentoxin 5349, 8332
- chemicals, mutagenic effects  
 2-aminopurine 7442  
 5-bromodeoxyuridine 1016  
 diethyl sulphate 6404  
 ethyl methanesulphonate 610, 1016, 7442, 8337, 9035, 9042  
 ethyleneimine 1016  
 hydroxylamine 7442  
 methyl methanesulphonate 610
- chimeras 8331  
 chloroplasts 2366, 2808, 5345, 7443, 8331, 9856  
 review 602  
 chloroplasts, number 3436  
 chromosome translocation 10789  
 chromosomes, aberrations 3426, 10783  
 chromosomes, addition and substitution 5343  
 chromosomes, number 595, 606  
 cold, effect of 6848  
 cold resistance 592, 8347, 8348  
*Colletotrichum*, technique 2378  
 combining ability 1374, 3423, 10780, 10781  
 complementation 8343  
 computer simulation 10778  
 cytology, technique, review 2370  
 cytoplasmic inheritance 605, 607, 5340, 6400  
 adenosine triphosphatase 8332  
 review 602  
 development and growth 603, 4438  
 diallel analysis 1374  
 embryo culture 591  
*Epitrix* 5356  
*Erysiphe* 589, 618, 1385, 3833, 6415, 7467, 9034, 9044, 9851, 9852, 10774  
*Erysiphe*, technique 2378  
 experimental designs 6402  
 flower 1380, 5340, 6411  
 flower, colour 5343  
 flowering 7451, 8335  
 foliage area 7450, 7461, 9859  
*Fusarium* 7433  
*Fusarium*, technique 2378  
 $\gamma$  rays 1375, 8336, 8337, 10777, 10783  
 gene interaction 582  
 gene interaction, technique 1372  
 genetic drift 10778  
 genetic variance 7462  
 growth period 10785  
 height 10785  
 yield components 10785
- genetics  
 chlorophyll 597, 3429, 3430, 5342, 5344, 5345, 5346, 8334  
 chloroplasts 5345  
 cytochrome c reductase 10779  
*Erysiphe* 9034  
 flower, colour 5343  
 germination 601, 6408  
 gynecium, colour 8333  
 leaf 5341  
 leaf, colour 5344  
 leaf, number 604  
 leaf, shape 604  
*Meloidogyne* 2365, 8349  
 nicotine 4431, 7440, 7456  
 nitrate reductase 10779  
 photoperiodism 10787  
*Phytophthora* 6418  
 picloram 4433  
 protein 3432  
*Pseudomonas* 6416, 6417, 7458  
 solanesol 597  
 sterility and fertility 600, 8341, 10777

*Nicotiana* contd.

- genetics contd.  
 sterility, male, cytoplasmic 5348  
 sterility, self 599, 3432, 6401, 9036  
*Thielaviopsis* 4444  
 viruses 621, 2365, 4444, 7452, 7458, 7473, 7475, 8350  
 genotype  $\times$  environmental interaction 7461, 7462, 10780, 10781  
 genotype  $\times$  environmental interaction, technique 6402, 6403  
 germination 601, 6408, 7462  
 germination, technique 2371  
 glands 6419, 9858, 9859  
*Glomus* 10788  
 grafting 823, 4445  
 growth period 604, 1374, 2361, 4436, 4439, 5347, 5351, 7457, 7458, 7461, 9862, 10780, 10781, 10782, 10785, 10786  
 gynecium 8341, 9036  
 gynecium, colour 8333  
 hairs 9858, 9859  
 haploidy 594, 1016, 1376, 1629, 2365, 2816, 3423, 3435, 4432, 4436, 4439, 4440, 5339, 5352, 6400, 6405, 6406, 6410, 7448, 7451, 7452, 8330, 8336, 8337, 8342, 9853, 9855  
 haploidy, technique 2367, 2373  
 heat and drought resistance 7461, 7462  
 heat and drought resistance, technique 2382  
 height 1374, 1379, 3424, 4436, 4439, 5347, 7431, 7450, 7461, 8340, 9035, 10785  
*Heliothis* 6419  
 heritability 584, 5347, 9037  
*Heterodera*, technique 2378  
 heterosis 584, 3423, 3424, 3435, 5351, 7462, 8334, 8335, 10780, 10781  
 growth period 10785  
 height 8340, 10785  
*Peronospora* 10771, 10772  
 quality, for smoking 10771, 10772  
 yield components 10785  
 heterozygosis 8330  
 history and evolution 600, 1381, 2369  
 homozygosis 5339, 8330  
 homozygosis, technique 1376  
 hybrid varieties 3425, 7438  
 hybridization 1678  
 hybridization, interspecific 591, 592, 593, 600, 605, 1375, 2362, 2367, 2369, 5343, 5348, 5351, 6399, 6401, 6414, 6418, 7443, 7471, 7472, 8332, 8335, 8684, 9859, 9862, 10777, 10786, 10796  
 review 2371  
 inbreeding 582, 584, 3423, 4439, 7431  
 internode, length 9035, 10786  
 irrigation 4443, 7462  
*Lasioderma* 6420  
 leaf 1374, 3439, 4442, 5341  
 leaf, colour 2380, 5344, 7445  
 leaf, number 1379, 4436, 4439, 5347, 7457, 10787  
 leaf, senescence 7445  
 leaf, shape 4436  
 leaf, size 1379, 9035, 9863, 10786  
 leaf, weight 7450  
*Leptinotarsa* 5355  
 light, effect of 601, 5344, 5345, 6408  
 linkage 4433  
 lodging 615, 1382, 1383  
*Manduca* 5356  
 maternal effects, flowering 8335  
 meiosis 5352, 6418, 10782  
 meiosis, technique 2370  
*Meloidogyne* 620, 622, 2365, 3435, 3446, 4447, 4820, 7470, 7473, 8349, 8350  
 physiological races 7468, 7469  
*Meloidogyne*, technique 2378  
 multiple genes 604  
 mutation 604, 606, 607, 2363, 4433, 5344, 5345, 7443, 10778  
 chlorophyll 8338  
*p*-fluorophenylalanine 10793  
 photorespiration 9856, 9857  
 mutation, induced 610, 1375, 1678, 2376, 4432, 6404, 7442, 8336, 8337, 9035, 9042  
*Peronospora* 10782  
*Thielaviopsis* 10782



**Nicotiana contd.**

- mutation, induced *contd.*
  - viruses 10782
- mycorrhiza 10788
- Myzus* 7471, 7472
- outcrossing 4435
- pathology 7463
- Peronospora* 1370, 1378, 3439, 5354, 8336, 9862, 10771, 10772, 10782
  - physiological races, Turkey 3440
- Peronospora*, technique 2378
- photoperiodism 604, 9860, 10787
- photorespiration 9856, 9857
- photosynthesis 607, 3429, 3430, 6944, 7450
- Phytophthora* 617, 618, 621, 3425, 4446, 5339, 7435, 7448, 9044, 9852, 10774, 10775, 10776, 10797
  - physiological races 619, 1384, 6418 USA 3442
- Phytophthora*, technique 2378, 3441
- pollen 4440, 5352, 10777, 10783, 10784
- pollen, technique 2370, 3433, 8344
- pollination 2372, 4435, 6401
- pollination, technique 2371
- pollution, atmospheric 7459, 7460
- pollution, atmospheric, technique 2378
- polyploidy 592, 593, 595, 2364, 2369, 3437, 5346, 6399, 6418, 8342, 9859, 9862, 10782
- polyploidy, technique 7444
- population genetics 7440, 10778
- Pratylenchus*, technique 2378
- protoplast fusion 590, 594, 2375, 4791, 5349, 6400, 7817, 8331, 8339, 8340, 8343, 9853, 10790
- protoplasts 594, 3825, 4789, 5346, 6400, 7817, 8338, 9041, 9857, 10793
- protoplasts, technique 2374, 9040
- Pseudomonas* 617, 618, 4443, 5339, 6415, 6416, 6417, 7433, 7435, 7458, 7464, 7465, 9851, 10774, 10775, 10776
  - physiological races 2383 Japan 7466
- Pseudomonas*, technique 2378
- Pythium* 619
- quality, for smoking 598, 608, 609, 612, 2380, 3420, 3438, 4430, 6406, 7454, 7455, 8334, 9858, 9863, 10771, 10772, 10774, 10775
- radiation 3426
- recombination 823
- respiration 607
- root 615, 1382, 1383, 4445
- salinity 9038
- seed production 4435
- selection, artificial 2376, 5347, 7431
- shade 619
- soil pH 10788
- sowing and planting date 7447
- Spodoptera* 7471, 7472
- stem 1382, 1383
- sterility and fertility 593, 595, 600, 8341, 8343, 10777
- sterility and fertility, technique 2371
- sterility, male 3425
- sterility, male, cytoplasmic 605, 1378, 1380, 5348, 5349, 5351, 6411, 7443, 7446, 7449, 8335, 10771, 10772, 10786, 10791
  - review 7453
- sterility, male, technique 2371
- sterility, self 599, 2372, 3432, 6401, 9036
- stomata 3436
- stunt 616
- taxonomy 2369, 5355, 9043, 10795
- temperature, effect of 606, 607, 2363, 2364, 4820, 6408, 8692, 9860, 10784
- Thanatephorus*, technique 2378
- Thielaviopsis* 614, 617, 618, 4444, 4445, 9034, 9852, 10774, 10775, 10782
- Thielaviopsis*, technique 2378
- tissue culture 592, 593, 1016, 2362, 2364, 2816, 3431, 4431, 4432, 4789, 5344, 5346, 6400, 6409, 6410, 6412, 7444, 7451, 8342, 8345, 9039, 9041, 9855, 10782, 10789, 10792
- transformation 6401, 10777
- ultraviolet rays 4432
- varieties
  - Australia 3421
  - Canada 6399
  - Czechoslovakia 1371

**Nicotiana contd.**

- varieties *contd.*
  - Japan 589, 9034, 9851, 9852, 10774, 10775, 10776
  - Kazakh SSR 4429
  - New Zealand 7439
  - Poland 7438
  - Turkey 1370
  - Ukrainian SSR 4429
  - USA 588, 3422, 6398
  - USSR 4429, 4430
- variety trials
  - Bulgaria 6397
  - Canada 585, 7434, 7437, 10773
  - Indonesia 4428
  - Japan 7436
  - S. Korea 7435, 7436
  - USA 586, 587, 3853, 4426, 4427, 7433
- Verticillium* 7439
- viruses 583, 614, 618, 621, 622, 623, 2365, 2378, 3435, 3444, 3445, 3446, 3447, 3833, 4444, 5339, 5357, 6415, 7433, 7435, 7448, 7452, 7454, 7458, 7473, 7474, 7475, 7476, 8336, 8350, 8692, 9044, 9045, 9862, 9863, 10774, 10775, 10782, 10796
  - review 2377
- water balance 7462
- weather fleck 3420
- X rays 3426, 5349
- yield components 604, 3424, 10785
- Nicotiana - Glycine*, protoplast fusion 1373
- Nicotiana - Solanum*
  - chemicals, general effects, triazines 7441
  - protoplast fusion 7441
- Nigella*
  - cell division 5405
  - radiation 5405
  - tissue culture 5405
- Nigrospora* (see also *Khuskia*)
- Nilaparvata*
  - genetics, *Oryza* 396
  - Oryza* 390, 391, 392, 393, 395, 397, 398, 400, 3199, 4227, 5144, 8215, 8216, 9699, 10620
  - physiological races 394, 396, 399, 3200, 8155, 8157, 8923, 10619
    - Asia 9711
    - India 402, 1205
    - Indonesia 6140
    - Sri Lanka 402
  - review 402
  - symposium 388
- Nilaparvata*, technique, *Oryza* 389, 3201
- Nitrogen fixation**
  - Alnus* 3630
  - Arachis* 2795, 3479, 7517
  - Cicer* 4678
  - crop plants 9395
  - Desmodium* 5241
  - Glycine* 970, 2730, 2731, 2733, 3759, 3765, 3767, 5697, 6763, 6774, 10129, 10146, 10148, 11120, 11121, 11122, 11151, 11159
  - Klebsiella* 9395, 11120
  - leguminous forage crops, review 6241
  - Lotus* 474, 475, 476
  - Medicago* 444, 3247, 3252, 4287, 5221, 5222, 6249, 9751, 10664, 10665
  - Oryza* 1686, 2848, 3831
  - Pennisetum* 2793
  - Phaseolus* 6719, 6720, 8582, 9295, 10109
  - Pisum* 7786, 10176
  - Psophocarpus* 6806
  - pulses 1686, 4678
    - review 6241
  - Rhizobium* 9395, 11120, 11122
  - Trifolium*, crimson clover 7301
  - Trifolium*, red clover 3277
  - Trifolium*, white clover 463, 1285, 3277
  - Vicia*, broad bean 4682
  - Vigna*, cowpea 5667
  - Vigna*, minor species 4678
- Nitrogen fixation, technique**
  - Astragalus* 9745
  - Medicago* 9745
  - Onobrychis* 3292, 9745
  - Oryza* 8192
- Nondisjunction**
  - cereals 3208
  - grasses 3208
  - Poa* 10627
  - Triticum* 2905

**Nondisjunction contd.**

- Zea*, maize 1956, 3040, 5993
- Nonleguminous forage crops, genetic resources** 5243
- Nucleolus**
  - Allium*, minor species 3658
  - Allium*, onion 8508, 10049
  - Euchlaena* × *Zea*, maize 243
  - Hordeum* 8103, 10198
  - Pisum* 6783, 10166
  - review 10198
  - Ricinus* 634
  - Secale* 5866
  - Trigonella* 10682
  - Triticum* 3918, 5866
  - Zea*, maize 8020
- Nucleolus, number**
  - Pinus* 1510
  - Zea*, maize 4968
- Nucleolus, size**
  - Pinus* 1510
  - Secale* 10396
  - Secale* × *Triticum*, triticales 10396
  - Triticum* 10396
- Nucleus**
  - Aegilops* 7866
  - Avena* 7866
  - Hordeum* 6087, 7866
  - Pisum* 6783
  - Secale* 7866
  - Secale* × *Triticum*, triticales 7866
  - Triticum* 6901, 7866
- Nucleus, number**
  - Agaricus* 1518
  - Camellia* 9867
  - Glycine* 5686
- Nucleus, size**
  - Secale* 10396
  - Secale* × *Triticum*, triticales 10396
  - Sorghum* 333
  - Triticum* 10396
  - Vigna*, minor species 9306
- Nullisomic analysis** (see Gene location)
- Nupserha**, *Glycine* 6778
- Nutrients** (see Chemicals, as nutrients)
- Nutritive value** (see Quality, for nutrition)
- Nuts**
  - breeding, Georgian SSR 9921
  - chemicals, as plant constituents, fatty acids 65
  - polyembryony and twinning 5782
- Nyctea*, *Juglans* 786
- Nymphula*, *Oryza* 5115
- Oak** (see *Quercus*)
- Oats** (see *Avena*)
- Oberea**, *Glycine* 3773
- Ocimum**
  - chemicals, as plant constituents, methylchavicol 2771
  - chromosomes, number 10228
  - Fusarium* 11202
  - genetics, *Fusarium* 11202
  - hybridization, interspecific 11202
  - taxonomy 2771
- Odcoileus**, *Populus* 5519
- Oidium**, *Psophocarpus* 6810
- Oil palm** (see *Elaeis*)
- Oil plants**
  - chemicals, as plant constituents
    - fatty acids 65
    - glucosinolates, technique 5785
    - lipids, technique 5785
    - oil, fatty, technique 5785
- Okra** (see *Hibiscus*)
- Olea**
  - chemicals, as plant constituents
    - aminoacids 7502
    - auxins 9896
    - carotenoids 9897
    - esterase 9897
    - fatty acids 7502
    - lipids 7502
    - malic enzyme 9897
    - miscellaneous 3476
    - protein 7502
    - stearic acid 7502
    - xanthophyll 9897
  - fruit 4480
  - genetic resources 10849
  - height 9101
  - inflorescence 4480
  - leaf 4480
  - mutation, induced 9101



**Olea** *contd.*

- pollen 646
- Pseudomonas* 2433, 2434
- quality, for pickling and salting 9075
- rooting capacity 9896
- seasonal growth 7501
- sterility and fertility 647
- temperature, effect of 7501
- tissue culture 3475
- varieties, classification 4480, 9897

**Oligonychus**

- Malus* 9933
- Sorghum* 4183, 8144, 8145

**Olive** (see *Olea*)**Ollucus**

- genetic resources 6855
- germplasm banks, Peru 6855

**Onion** (see *Allium*, onion)**Onobrychis**

- cell division 467
- chemicals, as nutrients, nitrogen 3292, 9745
- chemicals, as plant constituents
  - carotene 1288
  - tannin 6242
- chromosomes, number 7848
- cold resistance 1288, 6271
- combining ability 1288
- heterosis 1288
- hybridization, interspecific 1288
- nitrogen fixation, technique 3292, 9745
- pollination 5234
- polyploidy 467
- Rhizobium* 3292
- seed 6242
- seed production 1288
- sterility, self 5234
- varieties, Canada 6271
- variety trials
  - Italy 3291
  - Kazakh SSR 2208

**Ophiomyia**

- Glycine* 1645, 6748
- Vigna*, minor species 1644, 6748

**Orange** (see *Citrus*, orange)**Orchard grass** (see *Dactylis*)**Origanum**

- chromosomes, number 3861
- genetics
  - sterility, male 6824, 9342
  - sterility, male, cytoplasmic 6824, 9342
  - sterility, male 6824, 9342
  - sterility, male, cytoplasmic 6824, 9342

**Ornithopus**

- embryo culture 5207
- hybridization, interspecific 5207

**Orobanche**

- Helianthus*, sunflower 1411, 2422, 5386
  - physiological races 643, 645
- Vicia*, broad bean 4668, 6695
  - physiological races 2666

**Orobanche, technique**

- Helianthus*, sunflower 3473
- Vicia*, broad bean 11089

**Orseolia, Oryza** 2173, 5115, 5143, 5146, 8216, 9699, 9710**Orseolia, technique, Oryza** 3201**Oryza**

- Acrocyndrium* 2164, 6180, 8206, 8208, 9704
- agronomy
  - review 1229
  - symposium 3157
- Alternaria* 8202
- andrecium 3186
- andrecium, anatomy 8174
- aneuploidy 9679, 10594
- annual habit 7205
- anther culture 355, 366, 1221, 2146, 2147, 3185, 4197, 4208, 5761, 5762, 6151, 6152, 7191, 8165, 8177, 8695, 8696, 8697, 8904, 9670, 9671, 9672, 9673, 9674, 9675, 9676, 9677, 9678, 9679, 9680
  - review 2815
- anther, length 9692
- anther, size 10601
- Aphelenchoides* 2171, 6191
- Aphelenchoides*, technique 6192
- Aspergillus* 2162
- awns 6146, 9667, 9692
- Azolla* 1686, 8192
- $\beta$  rays 7187

**Oryza** *contd.*

- back crossing 5761
- bacteria 9700
- borers, unspecified 5147
- botany, symposium 3157
- breeding 343, 1206, 2106, 2111, 3161, 6187
  - bibliography 1207
  - book 344, 5114
  - Brazil 8887
  - China 2815
  - Colombia 3637
  - France 7197
  - India 2110, 7198
    - symposium 1198
  - Indonesia 6140
  - Iran 2104
  - Italy 3169
  - Japan 374, 2108, 7199
  - Malaya 5091
  - Pakistan 6134, 6135
  - Philippines 6158, 6160, 7200
    - review 345
  - S. Korea 4802
  - Spain 7201
  - Sri Lanka 7202
  - Taiwan 6175
  - Thailand 7203
  - USA 4190, 7204
    - review 6877
- breeding, technique 5112, 8908
- cell division 9679
- centres of origin or diversity 5115
- Cercospora* 2164, 9664
- Cerodontha* 8214
- chemicals, as nutrients
  - boron 8157
  - calcium 4815
  - copper 6138
  - iron 6138, 7208, 8157, 8193
  - magnesium 4815
  - miscellaneous 6145
  - nitrogen 1220, 1239, 1632, 1686, 2848, 3163, 3189, 3191, 3831, 4213, 4215, 4793, 5108, 5132, 5136, 6156, 6174, 8157, 8192, 8213, 9657, 10610
  - phosphate 8157
  - phosphorus 3191, 4793, 4815, 5108, 8156, 8193, 9657
  - potassium 3191, 5108, 9657
  - zinc 6138, 8156, 8157, 8193
- chemicals, as plant constituents
  - acid phosphatase 1217, 2141, 2840, 2843, 5125, 7205
  - albumin 373
  - aminoacids 375, 1018, 1227, 5134, 5146, 8171, 8918
  - $\beta$ -amylase 4209
  - amylose 371, 376, 1226, 2150, 2153, 2155, 4192, 6159, 6161, 6162, 6163, 6165, 7200, 7203, 8182, 8187, 8674, 10611
  - anthocyanins 356, 2121, 3176, 9691
  - arginine 377, 5134, 6151
  - asparagine 6151
  - carbohydrates 2157, 2163
  - catalase 380
  - chlorophyll 359, 1211, 2141, 2142, 4198, 4203, 5124, 5761, 6137, 6149, 7187, 7208, 9673, 9678, 10598, 10607
  - cystine 377
  - cytochrome oxidase 5126
  - esterase 366, 367, 1217
  - fatty acids 8170
  - globulin 373
  - histidine 5134
  - histone 5126
  - iron 7208
  - isoleucine 375
  - lysine 375, 1018, 1227, 5134, 6151, 6156
  - lysine, technique 1039
  - manganese 7208
  - methionine 375
  - nitrate reductase 1233
  - nitrogen 5136
  - nucleic acids 5136, 9678
  - peroxidase 380, 1215, 1217, 5125, 5126, 7192, 7205
  - phenols 5146, 6179
  - phosphorus 2163, 7208, 8171, 10609
  - polyphenol oxidase 380

**Oryza** *contd.*chemicals, as plant constituents *contd.*

- potassium 10609
- proline 5134
- protein 359, 371, 373, 377, 1018, 1214, 1217, 1227, 3170, 6144, 6156, 6158, 6160, 6161, 6162, 6164, 6165, 7195, 8156, 8171, 10609, 10610, 10611
- protein, technique 1039
- ribonuclease 1217
- ribulose 1,5-diphosphate carboxylase 360, 9678
- serine 377
- starch 373, 2163, 10608
- sugar 2163, 5146, 8171
- superoxide dismutase 7192
- tryptophan 1018
- valine 377
- wax 5141
- chemicals, cytological effects
  - diethyl sulphate 4198
  - DMSO 4198
- chemicals, fertility and sex, effects
  - arsenate, zinc methyl 2135
  - ethephon 9367
  - zinc methyl arsonate 4202
- chemicals, general effects
  - aluminium 4815, 8156
  - S-2-aminoethylcysteine 6151
  - calcium peroxide 10613
  - chlorfluorecol 8176
  - chlormequat 8197
  - Echinochloa* extract 1212
  - ethephon 9671
  - GA 1215, 2139, 8176
  - hydrogen sulphide 10615
  - iron 1632, 5098, 8170
  - 5-methyltryptophan 2147
  - molinate 3198
  - NAA 8176
  - oxygen 10613
  - phenol 2130
  - sodium chloride 7192, 8913
  - sodium nitrophenol 8176
- chemicals, mutagenic effects
  - azide, sodium 4199, 5124, 6137, 10598
  - diethyl sulphate 1215, 1230, 4198
  - dimethyl sulphoxide 4198
  - ethyl methanesulphonate 1197, 1211, 1215, 1216, 1217, 1230, 2123, 2142, 2145, 2833, 2846, 5121, 5131, 6149, 7186, 10598
  - ethyleneimine 8167, 10607
  - N-methyl-N-nitrosourea 2125
  - N-nitroso-N-methylurea 1230, 5131, 6149, 7186
- Chilo* 1238, 1239, 8155, 8208, 8674
- chloroplasts 8164
  - photosynthesis 5122
- chromosome translocation 2126, 8167, 10599
- chromosomes, aberrations 4198, 6147, 9679
- chromosomes, morphology 6147, 10594
- chromosomes, number 9666
- climate 5125
- clines 5125, 7190
- Cnaphalocrocis* 401, 6194, 8155, 8212, 8213, 9699
- Cnaphalocrocis*, technique 1240
- Cochliobolus* 1202, 2164, 3167, 6136, 6179, 8201, 8202, 8205, 8920, 9699
- cold, effect of 6154, 6171, 7185
- cold resistance 357, 1201, 3159, 3179, 3183, 3192, 4217, 5117, 5119, 6140, 6148, 7210, 7211, 7212, 7213, 7214, 7215, 7216, 7217, 7218, 7219, 7220, 7221, 7222, 8196, 8915, 9684
  - symposium 7209
- combining ability 5127, 5133, 8886
  - yield components 9663
- competition 7193
- composite varieties 4189, 5117, 5119
- computer programming 2112, 8153
- Corticium* 1202, 6180, 8206, 8208, 9703
  - review 9707
- Corticium*, technique 4222
- Curvularia* 2162
- cytology 1207
- cytoplasmic inheritance 6139
- density of stand 7207, 9692
- development, abnormal 364



*Oryza contd.*

- development and growth 357, 4210,  
6154, 7193, 9690  
diallel analysis 377, 1213, 1218, 5127  
digestibility 6164  
*Diplodiella* 8202  
dormancy 2148, 6161  
*Drechslera* 4220  
ecology 3178  
ecotypes 2128  
endomitosis 8165  
endosperm, texture 3184, 6164, 7195,  
9689  
*Entyloma* 8919  
fertilization, sexual 10597  
flooding 1632, 2106, 2143, 2163, 3168,  
5090, 5091, 5092, 5095, 5096, 5097,  
5098, 5099, 5100, 5104, 5105, 5106,  
5107, 5108, 5109, 5110, 6158, 6170,  
7179, 8156, 8162, 10613  
symposium 5089, 5102  
flooding, technique 3165, 5103, 5111  
flower 8905  
flower, colour 9664  
flowering 5093, 8156, 8167  
foliage area 2132, 3182  
forage 342  
fungi 9700  
*Fusarium* 2162, 8202  
 $\gamma$  rays 358, 1197, 1211, 1214, 1225,  
1230, 2123, 2142, 4199, 4227, 5131,  
7185, 7186, 8162, 9667, 10592, 10598  
gene dosage 2150  
sterility, male, cytoplasmic 8906  
gene interaction 2134  
genetic resources 346, 2105, 2109, 5115,  
6853, 9404, 9652  
genetic variance 6173  
growth period 9688  
leaf 9688  
protein 10610  
yield components 7184, 8175, 9688  
genetics 1207  
acid phosphatase 7205  
amylose 1226, 2150, 2155, 6161  
anthocyanins 356, 2121, 3176, 9691  
*Cercospora* 9664  
chlorophyll 10607  
cold resistance 7210  
esterase 367  
fertilization, sexual 10597  
flower, colour 9664  
growth period 6153, 7190, 9664  
gynecium, colour 2121  
hairs 9664  
height 362, 1222, 2846, 3176, 5128,  
8163, 10602  
inflorescence, shape 1216  
internode, colour 9691  
*Laodelphax* 3199  
leaf 2124  
leaf, colour 356, 2121, 3176, 7210,  
9691  
leaf, size 2846  
ligule 10597  
*Nephotettix* 3199, 9712  
*Nilaparvata* 392, 395, 396, 398, 3199,  
8155, 9711, 10619  
peroxidase 7205  
photoperiodism 6153  
*Pyricularia* 387, 3196, 4225, 6153,  
6181, 6184, 6185, 6188, 7190, 8158,  
8210, 8921, 10618  
quality, for cooking 8191, 9694  
amylose 4192  
quality, for milling and baking 6161  
review 345  
*Scirpophaga* 8922  
seed, colour 3176, 4201, 6161  
seed, size 1216, 2846, 4211  
seed, texture 2835  
*Sogatella* 9706, 9709  
spikelets, size 4201  
stem 2124, 2846  
stem, colour 2121, 3176  
sterility and fertility 356, 9682  
sterility, male 4186, 8167, 10607  
sterility, male, cytoplasmic 8172, 8906  
*Thanatephorus* 5142  
viruses 2103  
*Xanthomonas* 2166, 8154  
review 1232

*Oryza contd.*

- genotype  $\times$  environmental interaction  
6168  
geography 9693, 10614, 10620  
germination 357, 1219, 2144, 2162, 3183,  
5124, 6154, 7192, 8907  
germplasm banks 5092  
Guinea Bissau 7844  
India 7844  
Malaya 2109  
Malaysia 7844  
Philippines 6158, 8153, 8679  
germplasm banks, technique 2112  
*Gibberella*, technique 3194  
growth period 361, 1219, 1226, 1229,  
1632, 2113, 2138, 2140, 2144, 2173,  
3158, 3159, 3163, 4189, 4216, 5099,  
5127, 6148, 6153, 6154, 7184, 7190,  
7214, 7216, 8158, 8162, 8214, 8674,  
8886, 8902, 8903, 9652, 9657, 9664,  
9667, 9668, 9685, 9687, 9688, 9702,  
10605, 10609, 10612  
gynecium, colour 2121  
gynecium, length 9692  
gynecium, size 10601  
habit 2106, 3158, 3172, 4203, 4218,  
5098, 5105, 5108  
habit, technique 5104  
hairs 1219, 4218, 9664  
haploidy 355, 4197, 4206, 7191, 8674,  
8697  
harvest index 8169, 9687  
heat and drought resistance 380, 2161,  
3164, 3168, 3179, 3831, 5100, 5115,  
6158, 8156, 8677, 9698, 10614  
heat and drought resistance, technique  
2137, 3193, 5113  
heat, effect of 3187  
height 358, 362, 373, 1211, 1215, 1219,  
1222, 1225, 2104, 2131, 2138, 2139,  
2143, 2144, 2151, 2163, 2846, 3158,  
3159, 3163, 3170, 3172, 3176, 3179,  
4190, 4200, 4203, 4204, 5110, 5116,  
5121, 5124, 5128, 5142, 6139, 6148,  
6150, 6174, 7208, 7220, 8154, 8162,  
8163, 8166, 8168, 8169, 8179, 8886,  
8902, 9652, 9667, 9668, 9681, 9687,  
9690, 10602  
review 6877  
*Helminthosporium*, technique 10615  
heritability 368, 376, 377, 1213, 2123,  
2133, 2134, 2153, 3181, 4192, 5127,  
5128, 5763, 6172, 6173  
growth period 9688  
leaf 9688  
yield components 7184, 9688  
heterosis 1218, 2122, 2134, 2146, 5123,  
5127, 9674  
yield components 7184, 8175  
history and evolution 343, 1228, 2844,  
6139, 7205, 7850  
homozygosis 355, 3185, 8177  
humidity 4207  
hybrid varieties 8909, 9674  
hybridization 1224, 2107, 8175  
hybridization, interspecific 356, 357, 364,  
367, 1206, 1228, 2840, 2843, 2845,  
4197, 5761, 5762, 6146, 6147, 8677,  
9666  
hybridization, technique 4207  
*Hydrellia* 6193, 8155  
inflorescence 1217, 2142, 4210, 6146  
inflorescence, number 7207  
inflorescence, shape 1216  
inhibitors 2166  
insects 6158, 8898  
internode 5105  
internode, colour 9691  
internode, length 9690  
internode, number 2139  
internode, size 2139, 2163, 5129, 6150  
irrigation 3190, 4213, 8896  
*Laodelphax* 3199  
leaf 2124, 9688  
leaf, colour 356, 2121, 3176, 7187, 7210,  
9691  
leaf, number 4210, 8168  
leaf, shape 7187, 9667  
leaf, size 2846, 4203  
leaf, weight 368, 369, 5763  
*Leptispa* 8217  
*Leptosphaeria* 8202  
lethals 9682

*Oryza contd.*

- light, effect of 2129, 9671  
ligule 2843, 6146, 10597  
linkage 4, 356, 367, 387, 1222, 1228,  
2121, 2845, 3176, 4201, 6146, 6153,  
6181, 7190  
*Cercospora* 9664  
fertilization, sexual 10597  
flower, colour 9664  
growth period 9664  
hairs 9664  
ligule 10597  
lodging 1229, 3170, 3172, 4189, 4200,  
4793, 8197, 9657  
*Magnaporthe* 1202, 1203, 4219, 5117,  
5119, 8206  
maternal effects 8164  
matrocliny 3181  
meiosis 1212, 6147, 8167, 10599  
review 2126  
*Meloidogyne* 1237, 7224  
*Metasphaeria* 8155  
mitochondria 8164  
mixoploidy 8674  
mixtures of crops or genotypes 2842,  
7850  
modifiers 5128, 6185  
mowing and cutting 342  
multiple alleles 5125, 6153  
multiple genes 387  
multivariate analysis 4204, 7206  
mutation 2124, 8177  
height 8163  
phosphorus 10609  
potassium 10609  
protein 10609  
mutation, induced 347, 358, 359, 1197,  
1208, 1211, 1214, 1215, 1216, 1217,  
1223, 1225, 1230, 2123, 2125, 2126,  
2142, 2145, 2833, 2835, 2846, 3179,  
3860, 4198, 4199, 4200, 4227, 5121,  
5124, 5131, 5780, 6137, 6148, 6149,  
6165, 6185, 7185, 7186, 7187, 8160,  
8162, 8167, 8192, 10592  
awns 9667  
chlorophyll 10598, 10607  
growth period 9667, 9668  
height 9667, 9668, 9690  
leaf, shape 9667  
review 3177  
seed, size 9667  
spikelets, number 9667  
sterility, male 10607  
mycoplasmas 391, 2175, 8157, 8218  
*Nephotettix* 3199, 8155, 8211, 8218,  
9699  
physiological races  
Bangladesh 9712  
Philippines 9712  
neutrons 2835, 6149  
*Nilaparvata* 390, 391, 392, 393, 395,  
397, 398, 400, 3199, 4227, 5144, 8215,  
8216, 9699, 10620  
physiological races 394, 396, 399,  
3200, 8155, 8157, 8923, 10619  
Asia 9711  
India 402, 1205  
Indonesia 6140  
Sri Lanka 402  
review 402  
symposium 388  
*Nilaparvata*, technique 389, 3201  
nitrogen fixation 1686, 2848, 3831  
nitrogen fixation, technique 8192  
*Nymphula* 5115  
*Orseolia* 2173, 5115, 5143, 5146, 8216,  
9699, 9710  
*Orseolia*, technique 3201  
outcrossing 8167, 9652  
*Pachydictyosia* 2119  
pathology 6158  
symposium 3157  
*Peloidas* 401  
*Penicillium* 2162  
perennial habit 2843, 7205  
*Phoma* 8202  
photoperiodism 3158, 3159, 3162, 3163,  
5093, 5094, 5112, 6153, 7179, 7190,  
8908, 9652, 10604, 10605  
photorespiration 5784  
photosynthesis 359, 369, 1220, 2129,  
3172, 4203  
*Phyllosticta* 8918



**Oryza contd.**

pollen 3180, 8164, 8171, 10597  
 pollen, number 9692  
 pollution, atmospheric, review 381  
 polyploidy 2843, 3178, 4197, 4205, 7188, 7850, 8165, 9679  
 protoplasts 8910  
*Pseudomonas* 6140  
*Pyricularia* 350, 387, 1201, 1230, 1234, 1235, 1632, 2104, 2107, 2169, 3167, 3168, 3170, 3172, 3196, 3831, 4223, 4226, 4793, 6153, 6186, 6187, 6189, 6190, 7190, 7221, 7223, 8154, 8157, 8158, 8200, 8203, 8209, 8674, 8677, 8886, 8894, 9367, 9661, 9703  
 physiological races 1695, 1696, 3197, 4225, 6181, 8210, 8921, 9705, 10618  
   Argentina 8204  
   China 386  
   India 1204, 6185  
   Japan 1236, 6183, 8207, 9708  
   S. Korea 385  
   Taiwan 5764, 5765  
   review 2170, 6183, 6184, 6185, 6188  
   symposium 6182  
*Pyricularia*, technique 4224, 10616, 10617  
 quality 6144, 6148, 6155  
   review 6161, 8181  
   symposium 6157, 7194  
 quality, for canning, technique 8184  
 quality, for cooking 371, 376, 2151, 2154, 4200, 4212, 5115, 6158, 6159, 6165, 7195, 7196, 7197, 7198, 7199, 7200, 7201, 7202, 7203, 7204, 8154, 8183, 8186, 8187, 8190, 8191, 8674, 9693, 9694, 9695  
   review 6163  
 quality, for cooking, technique 8185, 8186, 8187, 8188, 8189  
 quality, for food processing 1209, 7204  
 quality, for food processing, technique 8184  
 quality, for milling and baking 2149, 2152, 6159, 6161, 7195, 7197, 7198, 7199, 7202, 7204, 9696  
 quality, for milling and baking, technique 372  
 quality, for nutrition 376, 6156  
 quality, of wine 374  
 ratooning 8173  
 reciprocal effects, sterility, male 8172  
 recombination 6146  
*Rhizoctonia* 4221, 5141, 6178, 9367  
 rhizosphere 2848, 3831  
*Rhynchosporium* 2168, 8155, 8208, 9367  
*Rhynchosporium*, technique 5140  
 root 1632, 6170  
 root, size 3158, 8156  
 rooting capacity 5106  
 salinity 68, 378, 379, 1200, 2133, 2159, 2160, 3188, 3831, 4214, 5101, 5137, 5790, 6166, 7192, 8156, 8157, 8913, 9683  
 salinity, technique 2137  
*Scirpophaga* 8155, 8922  
 sclerenchyma 5144  
 seed 5130, 6155, 8903, 10608  
 seed, colour 358, 3176, 4201, 6161, 8923  
 seed, moisture 2162, 8907  
 seed, number 1228, 2131  
 seed, shape 358, 1214, 2128, 2141, 3175, 4192, 5125, 5129, 6159, 6161, 6165, 7198, 8905  
 seed, size 376, 1213, 1216, 1218, 1224, 2846, 3158, 3170, 3175, 3181, 4192, 4211, 5115, 5127, 6159, 6161, 8154, 8158, 9652, 9667, 9689  
 seed storage 2157, 2162, 8907  
 seed, texture 2152, 2833, 2835, 3181  
 seed, weight 364, 1213, 2107, 3181, 5115, 5130, 6155, 6161, 6171, 9689  
 seedlings 1219, 2140, 5127, 6154, 8168, 8179  
 selection, artificial 4186, 6151, 6172, 6173  
*Sesamia* 8674  
 shade 2129  
 shedding 6148, 9686  
*Sitotroga* 5145  
*Sogatella* 3168, 8155, 8195, 8216, 9706, 9709

**Oryza contd.****Sogatella contd.**

physiological races 8923  
 soil pH 1200, 2158, 6141, 8157, 8886  
 sowing 10612  
 sowing and planting date 361, 3159, 3181, 4216, 5094, 6168, 6169, 6172, 6173, 6174, 6175, 10611  
   symposium 6167  
 sowing, technique 10613  
 spikelets, anatomy 9686  
 spikelets, number 9667  
 spikelets, size 4201  
 stability 3831, 9665, 10596, 10601  
 stem 2124, 2846  
 stem, anatomy 5144  
 stem, colour 2121, 3176  
 stem, number 7207  
 stem, size 2163  
*Stenotarsonevus* 403  
 sterility and fertility 356, 2107, 2840, 2843, 3187, 3831, 4197, 4207, 5124, 6137, 6147, 7210, 8166, 8173, 9681, 9682  
 sterility, male 2135, 2146, 2844, 3186, 4186, 7189, 8167, 8171, 8173, 8677, 9367, 10607  
 sterility, male, cytoplasmic 3180, 4209, 5126, 7189, 8172, 8174, 8906, 8909, 9674, 10601  
 stomata, size 7187  
 straighthead 8914  
 succession, crop 2156, 5135  
 taxonomy 1207, 3831, 7206  
 temperature, effect of 357, 1226, 2141, 2150, 3180, 3181, 5127, 8166, 8171, 9673, 9681, 9690, 10605, 10609  
*Thaia* 2174  
*Thanatephorus* 3167, 3195, 5142  
 tillering 358, 364, 1229, 2131, 2142, 2163, 3158, 3170, 3182, 5107, 6169, 6174, 9652, 10598  
*Tilletia* 1202, 1203, 6136  
 tissue culture 2127, 2147, 4205, 4206, 5790, 6151, 8165, 8674, 8910, 8911, 9672, 10603, 10606  
 toxic soils 1632, 3166, 3831, 5098, 8156, 8157, 8170, 8193  
 transformation 2136  
 translocation, physiological 2129, 3190, 6171  
*Tryporyza* 2172, 9699  
*Ustilagoidea* 1202, 1203  
 variation 2842, 8912  
 varieties 1207  
   Brazil 352, 3173  
   China 2107, 9675  
   Colombia 353  
   Fiji 2116  
   India 349, 1199, 1210, 2117, 2118, 2119, 2120, 3160, 5090, 5120, 5121, 6141, 8900, 8901, 9658, 9660, 9661, 9662, 10592, 10593  
   Italy 2103  
   Japan 2115, 5118, 6143, 6144, 6145, 8158, 8160  
   Liberia 1632, 8208  
   Malaya 3160  
   Nepal 8899  
   Nigeria 1632  
   Pakistan 6135  
   Philippines 354, 8154, 8157, 8159  
   S. Korea 350, 351  
   Sierra Leone 3174, 8161  
   Sri Lanka 8897  
   Sudan 9659  
   Taiwan 348, 4191, 8898  
   Thailand 1208  
   USA 1209, 4189, 4190, 5117, 5119  
   Venezuela 4188  
 varieties, classification 370, 1218, 2130, 3175, 5125, 8180, 8903  
 variety trials 5097  
   Bangladesh 9656  
   Brazil 7181, 7182, 7183, 8888, 8889, 8890, 8891, 8892, 8893, 8894, 9653  
   Burma 347  
   Cuba 7180  
   India 2156, 3189, 5096, 6141, 6142, 8895, 9655, 9697  
   Indonesia 7215  
   Iran 2104  
   Nepal 7216

**Oryza contd.****variety trials contd.**

Philippines 2113  
 Romania 9657  
 S. Korea 3172  
 Sierra Leone 9654  
 South America 3171  
 Taiwan 2114  
 Turkey 4187  
 vegetative reproduction 10603  
 viruses 350, 1202, 1230, 1632, 2103, 2164, 2176, 3167, 3168, 5148, 6140, 6195, 8155, 8157, 8209, 8216, 8219, 8220, 8886, 9699, 9713, 9714  
 water balance 365, 3193, 8674  
 waterlogging 4215, 6170, 8194, 9697  
 wind 4190  
 X rays 1223, 1230, 2145, 7187  
*Xanthomonas* 1203, 1230, 1233, 2166, 3167, 3168, 4218, 5115, 5139, 6142, 6177, 8157, 8206, 8216, 8917, 9699, 9700, 9701, 9702  
 physiological races 382, 1231, 2165, 2167, 8154  
   India 8916  
   Japan 383, 5138, 6176  
   review 384  
   review 1232, 5138  
*Xanthomonas*, technique 8198, 8199  
 yield components 363, 368, 1213, 1225, 2122, 2131, 2133, 2134, 2138, 2140, 2145, 3182, 3183, 4185, 4215, 4217, 5116, 5123, 5128, 5131, 5132, 5133, 6168, 7184, 8175, 8902, 9663, 9685, 9688  
**Oryza - Glycine**, protoplast fusion 10595  
**Oryza × Sorghum**  
 chemicals, as plant constituents  
   esterase 4193  
   nucleic acids 4194  
 heat and drought resistance 4195  
 hybridization, intergeneric 4193, 4194, 4195  
**Oryza × Triticum**  
 hybridization, intergeneric 4196  
 naked grain 4196  
**Oryzaephilus, Phoenix** 2518  
**Oscinella**  
 Avena 3008, 10253  
 Hordeum 10253, 10256  
 Triticum 209, 6973, 10253  
 Zea, maize 4819  
**Oscinella**, technique, Hordeum 8867, 10548  
**Osmosis** (see Water balance)  
**Ostrinia**  
 Euchlaena × Zea, maize 9545  
 Sorghum 8145  
 Zea, maize 1920, 2011, 3082, 4947, 5012, 6066, 8065, 9593, 10506  
 Zea, popcorn 3082  
 Zea, sweet corn 4076, 7076  
**Ostrinia**, technique, Zea, maize 5013, 7070  
**Oulema**  
 Avena 10411  
 cereals 9419  
 Hordeum 1156, 4832  
 Triticum 2986, 4832, 4918, 6973, 8773  
**Outcrossing** 1621, 2778, 2803, 5727, 7856  
 Agropyron 2201  
 Allium, onion 4606  
 Asclepias 7407  
 Avena 1901  
 Bromus 6217  
 Eucalyptus 800  
 Fragaria 10924  
 Glycine 1590  
 Helianthus, sunflower 637  
 Hordeum 5038, 7079  
 Lolium 5178, 8239, 8241  
 Lupinus 5236, 7305  
 Lycopersicon 11044  
 Medicago 3255, 5208  
 Nicotiana 4435  
 Oryza 8167, 9652  
 Sesamum 2409  
 Sorghum 9647  
 Thymus 8653  
 Trifolium, subterranean clover 5232  
 Triticum 1059, 1083, 3920  
 Vicia, broad bean 27, 939, 3728, 3730, 6689  
 Vigna, cowpea 5664



**Outcrossing contd.***Zea*, maize 7856**Ovary** (see *Gynecium*)**Overdominance** (see *Heterosis*)**Ovule***Glycine* 5640*Macroptilium* 5640*Macrotyloma* 5640*Morus* 732*Phaseolus* 5640*Pisum* 7785*Vigna*, cowpea 5640*Vigna*, minor species 5640**Ovule, number***Medicago* 4283*Ribes*, gooseberry 671*Vicia*, broad bean 2676**Ovule, size***Avena* 5809

cereals 5809

*Secale* 5809*Secale* × *Triticum*, triticales 5809*Triticum* 5809**Oxalis**

genetic resources 6855

germplasm banks, Peru 6855

**Oxycoccus** (see *Vaccinium*)**Pachydiplosis**, *Oryza* 2119**Paddy** (see *Oryza*)**Palatability***Dactylis* 7228, 7230, 7231, 9723*Festuca* 7228, 7230*Lolium* 7228, 7230*Phleum* 7228, 7230*Pisum* 6788*Populus* 5519*Trifolium*, white clover 7230**Palatability, technique***Festuca* 7264

grasses 4244

*Panicum* 4244**Palms**

genetic resources 4810

pollen 3582

**Panax**

breeding, S. Korea 4495

chemicals, as plant constituents, saponins 9098

chromosomes, number 4496

flowering 5756

polyploidy 4496

sterility and fertility 4496

tissue culture 663, 5756, 5757, 9097, 9098

**Panicle** (see *Inflorescence*)**Panicum***Alternaria* 1176

aneuploidy 320

apomixis 320, 10556

*Aspergillus* 1176*Atherigona* 9628

bacteria 1173, 1174, 1175, 7120

bacteria, technique 8127

breeding, USSR 322, 2061, 9619

chemicals, as nutrients

nitrogen 9620

phosphorus 9620

potassium 9620

chemicals, as plant constituents

 $\alpha$ -amylase inhibitor 6112

protein 4106

tryptophan 7119

chemicals, fertility and sex, effects,

ethephon 9622, 9623

chemicals, general effects

aluminium 6110

manganese 6110

chemicals, mutagenic effects,

ethyleneimine 8873

chromosomes, number 6111, 9624

digestibility 4244, 9625

dormancy 321

embryo sac 6111

*Erwinia*, technique 4108

fertilization, sexual 320

forage 9625

fungi 1173, 1174, 1175, 7120

fungi, technique 8127

genetics, apomixis 10556

germplasm banks

India 7121

Ivory Coast 7844

grazing 2062

**Panicum contd.**

growth period 322

haploidy 320

height 2062, 8873

heritability 3132

digestibility 9625

inflorescence 5062, 8873

inflorescence, length 8873

inflorescence, weight 3132

internode, length 8873

meiosis 6111

mutation, induced

height 8873

inflorescence 8873

inflorescence, length 8873

internode, length 8873

seed, colour 8873

seed, shape 8873

sterility and fertility 8873

palatability, technique 4244

*Penicillium* 1176

photosynthesis 6111

polyploidy 320, 6111, 10556

*Pseudomonas* 1176, 9626*Pseudomonas*, technique 4108

quality, for milling and baking 323, 5063, 9621

quality, for nutrition 5720

seed, colour 323, 8873

seed, shape 8873

seed, size 4107

seed storage 321

seed, weight 3132

soil stabilization 6110

*Spacelotheca* 9627*Sphacelotheca* 1177, 1178, 1179, 1180,

2061, 3134, 7120

sterility and fertility 6111, 8873

sterility, male 9622, 9623

temperature, effect of 321

tissue culture 9624

toxic soils 6110

varieties

USA 5062, 6110

USSR 2061

variety trials

Cuba 4106

Ukrainian SSR 9620, 9621

*Xanthomonas* 1176, 9626*Xanthomonas*, technique 4108

yield components 1172, 3132, 3133

**Panonychus**, *Malus* 5430, 5432**Papaver**

chemicals, as plant constituents

alkaloids 9877, 9878

codeine 9877, 9878

isothebaine 9879

morphine 2396, 9877, 9878

oripavine 9879

rhoeadine 1390

thebaine 9877, 9878, 9879

chemicals, cytological effects, ethane

methanesulphonate 9050

chromosomes, aberrations 6429, 9050

chromosomes, morphology 1389

chromosomes, number 7848

desynapsis 6429

diallel analysis 2396

fruit, size 1389

genetic variance

leaf, number 10806

leaf, size 10806

genetics, desynapsis 6429

growth period 1389

heritability

leaf, number 10806

leaf, size 10806

leaf 1389

leaf, number 10806

leaf, size 10806

light, effect of 9877, 9878

meiosis 6429, 8358

pollen 1389

polyploidy 1389, 8358

stomata 1389

taxonomy 9879

temperature, effect of 9877, 9878

**Papaw** (see *Carica*)**Papaya** (see *Carica*)**Paprika** (see *Capsicum*)**Paramutation** 9382**Parenchyma**, *Triticum* 6929**Parenchyma**, anatomy, *Malus* 10861**Parsley** (see *Petroselinum*)**Parsnip** (see *Pastinaca*)**Parthenium**

chemicals, as plant constituents, latex 8383

chemicals, general effects

GA 5409

sodium hypochlorite 5409

germination, technique 5409

quality, for industrial processing 8383

**Parthenocarp***Citrus*, orange 9966*Citrus*, pomelo 6519*Cucumis*, cucumber 3694, 4633, 8532*Elaeis* 2431*Gossypium* 5297*Lycopersicon* 1483, 2591, 3709, 4646, 10978, 11053*Phoenix* 4542*Pyrus* 1448*Syzygium* 1484**Paspalum**

chemicals, as plant constituents

 $\alpha$ -amylase inhibitor 6112

lipids 2198

polysaccharides 2198

starch 2198

chromosomes, number 6228

digestibility 6201

embryo sac 2198

germplasm banks, India 7121

polyploidy 2198

quality, for nutrition 3209

selection, artificial 3209

sexual reproduction 6228

sterility, self 6228

varieties, India 3137

variety trials, New Zealand 414

**Passiflora**

fruit, size 5486

pollination 5485

sterility, self 5486

**Passiflora** × **Carica**, hybridization,

intergeneric 2464

**Passion fruit** (see *Passiflora*)**Pastinaca**

breeding, USSR 9209

varieties, USA 8496

**Pathology** 2789*Acer* 7628*Arachis* 4486*Avena* 3867*Castanea* 7628

cereals 3869, 4826, 5815

*Citrullus* 6639*Citrus*, symposium 3567*Cocos* 9140

crop plants 1688, 1835, 2819, 2821,

2826, 2830, 3868, 3869, 3870, 4817,

4818, 5796, 6876, 8691, 9414, 9415,

10236

review 1026, 1691, 1693, 2824, 2825,

5797

symposium 2818, 6182, 7857

*Dioscorea* 1296

forest trees 7628

fruit crops 3869

*Hordeum* 1157, 3867*Ipomoea* 1296*Linum* 3867*Lycopersicon* 2650, 9257*Manihot* 1296*Medicago* 1275*Nicotiana* 7463*Oryza* 6158

symposium 3157

*Phoenix* 9141*Prunus*, peach 714

pulses 3869

symposium 11074

*Quercus* 5515

root crops 1296, 3869

*Secale* 3023, 3867*Solanum*, potato 10692*Trifolium*, red clover 8957*Triticum* 3867, 9421*Ulmus* 7628

vegetable crops 827, 3869

*Vitis* 10006*Zea*, maize 4061**Pathology, technique**, root crops 9769**Pea** (see *Pisum*)**Pea**, southern (see *Vigna*, cowpea)



- Peach** (see *Prunus*, peach)  
**Peanut** (see *Arachis*)  
**Pear** (see *Pyrus*)  
**Pecan** (see *Carya*)  
**Pectinophora**, *Gossypium* 554, 4393, 6362, 7394, 8996, 10728  
**Pelargonium**  
 chemicals, as plant constituents  
 citronellol 652  
 geraniol 652  
 menthone 652  
 oil, essential 652  
 hybridization, interspecific 3834, 8676  
 polyploidy 3834, 8676  
 sterility and fertility 3834, 8676  
**Pelopidas**, *Oryza* 401  
**Pemphigus**, *Lactuca* 6628, 6629, 6630, 6631  
**Penetrance**  
*Phaseolus* 10098, 11096  
*Pisum* 7780, 9325  
**Penicillium**  
*Oryza* 2162  
*Panicum* 1176  
*Sorghum* 1193  
**Pennisetum**  
 aneuploidy 2066, 2067, 2068, 2069, 10561  
 anther culture 9632  
 apomixis 3135, 8129  
 back crossing 9630  
 breeding  
 India 1646  
 USA 1181  
 brown mottle 9634  
 cell culture 7123  
 cell division 1182  
 centromere 2065  
*Cercospora* 9634  
 chemicals, as nutrients  
 nitrogen 2793, 4110, 8874  
 phosphorus 4110  
 potassium 4110  
 chemicals, as plant constituents  
 alcohol dehydrogenase 8128, 10558  
 aminoacids 4112, 6118  
 $\alpha$ -amylase inhibitor 6112  
 chromatin 10561  
 iron 6118  
 lysine 2793, 4112  
 methionine 4112  
 minerals 6117  
 miscellaneous 4112  
 nitrate reductase 8874  
 nucleic acids 5064  
 oxalic acid 10249  
 phosphorus 6118  
 protein 2793, 4112, 6117, 8874, 10559  
 starch 6118  
 sugar 9633  
 chemicals, fertility and sex, effects  
 colchicine 6113  
 2,3-dichloroisobutyrate, sodium 325  
 chromosome translocation 2065, 2066, 2067, 3135  
 chromosomes, accessory 1182, 6115  
 chromosomes, elimination 3135, 8129  
 chromosomes, number 2070  
*Claviceps* 2793  
 combining ability 324  
 yield components 8875  
 development and growth 8874  
 diallel analysis 2064, 4111  
 digestibility 6201, 9633, 10559  
 foliage area, technique 2071  
 forage 1181, 10559, 10560  
 $\gamma$  rays 2066, 2067  
 gene location 2068, 2069  
 genetics 2068, 2069  
 alcohol dehydrogenase 8128, 10558  
 brown mottle 9634  
 growth period 10562  
 height 1181, 6201, 9633, 10559  
 genotype  $\times$  environmental interaction 2064  
 germination 1183  
 germplasm banks, India 7121  
 growth period 5065, 8672, 10562  
 heat and drought resistance 1183  
 height 1181, 5065, 6201, 9633, 10559  
 heterosis 6114  
 nitrate reductase 8874  
**Pennisetum** contd.  
 hybridization, interspecific 2793, 3135, 4109, 5065, 5066, 6113, 8129, 8874, 10559, 10560, 10563  
 inbreeding 8672  
 inflorescence, weight 324  
 leaf, anatomy 7122  
 leaf, size, technique 2071  
 linkage, alcohol dehydrogenase 8128  
 lodging 6201  
 meiosis 2065, 2066, 2067, 2070, 3135, 8129, 10561  
 mutation 6114  
 alcohol dehydrogenase 8128  
 nitrogen fixation 2793  
 photoperiodism 5066, 8672  
 polyploidy 6113, 10560, 10563  
*Puccinia* 2793, 10559  
*Pyricularia* 9635  
 quality, for nutrition 3209, 5720, 10249  
 red leaf spot 9634  
 root, anatomy 7122  
*Sclerospora* 324, 2793, 3136, 6118, 8672, 8876, 9630  
*Sclerospora*, technique 10565  
 seed, size 5065  
 selection, artificial 3209  
 sexual reproduction 10560  
 sowing and planting date 10562  
 stem, anatomy 7122  
 sterility and fertility 2066, 2067, 2070, 5065, 6113, 8129, 10560  
 sterility, male 325  
 sterility, male, cytoplasmic 324, 9630  
 synthetic varieties 8672  
 taxonomy 2070, 5066, 10564  
 tissue culture 6116, 9632, 10563  
*Tolyposporium* 2793  
 variation 4110  
 varieties, USA 1181  
 variety trials, USA 3853  
 water balance 8672  
 yield 4109  
 yield components 2072, 3136, 4110, 4111, 8875, 9631  
**Pennisetum**  $\times$  *Festuca*, hybridization, intergeneric 8222  
*Peponapis*, *Cucurbita* 11016  
**Pepper** (see *Capsicum*; *Piper*)  
**Pepper spot**, *Brassica*, cabbage 5591, 6622  
**Peppermint** (see *Mentha*)  
*Peregrina*, *Sorghum* 4172  
**Perennial habit**  
*Euchlaena* 9598, 10513  
*Glycine* 2809  
*Lathyrus* 1293  
*Medicago* 8257  
*Oryza* 2843, 7205  
*Solanum*, egg plant 11068  
*Sorghum* 6124  
*Trifolium* 4292  
*Tripsacum*  $\times$  *Zea*, maize 4019  
**Periconia**, *Sorghum* 5085, 9651  
**Peronospora**  
*Allium*, minor species  $\times$  *Allium*, onion 8507  
*Beta*, sugar beet 8322  
*Brassica* 5575  
*Brassica*, Chinese cabbage 1642  
*Brassica*, oil crops 9060  
*Brassica*, rape 6437  
*Glycine* 2736  
*Medicago* 1274  
*Nicotiana* 1370, 1378, 3439, 5354, 8336, 9862, 10771, 10772, 10782  
 physiological races, Turkey 3440  
*Pisum* 10177  
*Spinacia* 8519  
 physiological races 10974  
**Peronospora**, technique  
*Beta*, sugar beet 6385  
*Nicotiana* 2378  
**Persea**  
 chemicals, as nutrients, calcium 5464, 5465  
 chemicals, as plant constituents  
 glutamate oxaloacetate transaminase 1470  
 heptulose 5466  
 leucine aminopeptidase 1470  
 malate dehydrogenase 1470  
 peroxidase 1470  
 phosphoglucumutase 1470  
**Persea** contd.  
 chemicals, general effects, methyl bromide 7578  
 cold resistance 3586  
 flowering 6527  
 genetics  
 glutamate oxaloacetate transaminase 1470  
 leucine aminopeptidase 1470  
 malate dehydrogenase 1470  
 peroxidase 1470  
 phosphoglucumutase 1470  
 hybridization, interspecific 7579  
*Phytophthora* 7579  
 quality, for fresh consumption 5466  
 rootstock 5464, 5465, 7579  
 salinity 5464, 5465  
 varieties  
 Kenya 6528  
 South Africa 10897  
 varieties, classification 6528  
**Persimmon** (see *Diospyros*)  
**Persistence**  
*Dactylis* 5153  
*Festuca* 1250, 5153  
*Hemarthria* 2207  
*Lolium* 5153, 9733, 10636  
*Medicago* 1261, 3253, 6243  
*Phleum* 2194, 5172  
*Poa* 8936  
*Trifolium*, red clover 1256, 5227, 5229  
**Pestalotia**, *Cocos* 35  
**Petal** (see *Corolla*)  
**Petroselinum**  
 breeding, USSR 9209  
 chemicals, as plant constituents  
 nucleic acids 6599  
 oil, essential 8655  
 chromosome transfer 4813  
 molecular genetics 6599  
 quality, for cooking 8655  
 quality, for fresh consumption 8655  
**Petroselinum**  $\times$  *Apium*, hybridization, intergeneric 8523, 10065, 11001, 11002  
**Petroselinum** - *Triticum*, chromosome transfer 4813  
**Petroselinum** - *Zea*, maize, chromosome transfer 4813  
**Petunia**  
 anther culture 6848  
 chemicals, as plant constituents  
 nucleic acids 6847  
 protein 6847  
 chemicals, fertility and sex, effects  
 actinomycin D 6847  
 chloramphenicol 6847  
 cycloheximide 6847  
 olivomycin 6847  
 chemicals, general effects  
 DMSO 6848  
 glycerol 6848  
 cold, effect of 6848  
 cytoplasmic inheritance 1004  
 gynecium 6847  
 pollen 6847  
 protoplast fusion 1004  
 sterility, male, cytoplasmic 1004  
 sterility, self 6847  
 transformation 1612  
**Petunia** - *Triticum*, protoplast fusion 9447  
**Phaeoisariopsis**, *Phaseolus* 6726, 6729, 8583, 10098  
**Phaeoramularia**, *Manihot* 4796  
**Phakopsora**  
*Glycine* 957, 1645, 2728, 7774, 10151, 11169, 11170  
 physiological races 1595  
*Phaseolus* 11107  
**Phalaris**  
 chemicals, as plant constituents  
 alkaloids 7234, 7266  
 ash 4268  
 gramine 7234, 7266  
 hordenine 7234  
 nitrogen 4268  
 protein 8934  
 cold, effect of 6230  
 cold resistance 10645  
 combining ability 3228  
 diallel analysis 3228  
 digestibility 3228, 4268  
 ecotypes 10624  
 flooding 10645



**Phalaris contd.**

- flowering 4267, 6230
- foliage area 10645
- genotype × environmental interaction 3227
- growth period 4268
- heritability 3227, 3228, 5197, 7234
- hybridization, interspecific 6229
- mixtures of crops or genotypes 6229
- mowing and cutting 6229
- photoperiodism 6230
- root, number 5197
- tillering 5197
- variety trials, New Zealand 413
- vegetative reproduction 5197
- vernalization 4267, 6230
- yield components 3228

**Phaseoleae**

- chemicals, as plant constituents, chromatin 8250
- history and evolution 8250

**Phaseolus (see also Macroptilium; Vigna, minor species)**

- asymmetry 5654
- back crossing 8588
- breeding
  - Colombia 6703, 6730, 7738, 8586, 9369, 10088, 10098
  - Kenya 1569
  - Sudan 4665
  - UK 2685
  - USA 5646, 5647, 5648, 6701
  - USSR 5649
- canopy 8579
- centres of origin or diversity 6702, 6717
- chemicals, as nutrients
  - aluminium 10098
  - calcium 4815
  - magnesium 4815
  - manganese 10098
  - nitrogen 6719, 8582, 9295, 10099
  - phosphorus 3865, 4815, 10098, 10109
  - potassium 2693
- chemicals, as plant constituents
  - ABA 2690
  - aminoacids 2692, 5658, 11103
  - carbohydrates 7747
  - chlorophyll 1571, 2693, 9292, 11098
  - coumestan 4690
  - fatty acids 10106
  - globulin 946, 11100, 11101
  - lectins 946, 4688
  - methionine 2691, 5658, 7741
  - nitrogen 946, 6720, 8582
  - nucleic acids 3858, 5641
  - phaseolin 7742
  - phaseollin 4690, 7742, 10108
  - phaseollinisoflavin 4690
  - phenols 8584
  - protease inhibitor 932
  - protein 1572, 1573, 3735, 5657, 5658, 6715, 7741, 7745, 8577, 8582, 10099, 10107, 11100, 11101, 11103
  - trypsin 10108
  - tryptophan 5658, 8580
- chemicals, fertility and sex, effects, GA 7744
- chemicals, general effects
  - aluminium 3865, 4815
  - cytokinins 4684
  - ozone 3737
- Pseudomonas* polysaccharide 5661
- chemicals, mutagenic effects
  - ampicillin 3735
  - dimethyl sulphate 1573, 6710
  - ethyl methanesulphonate 3735, 6709, 9292, 9294
  - ethylenimine 1573, 6710
  - furadentin 3735
  - methyl ethanesulphonate 3735
  - methyl methanesulphonate 3735
  - miscellaneous 11103
  - neomycin 3735
- chloroplasts 3858
- chromosome translocation 11097, 11099
- chromosomes, aberrations 5653, 11097
- chromosomes, morphology 945
- cold resistance 4686, 6722
- cold resistance, technique 6721
- Colletotrichum* 3733, 4692, 8583, 8588, 9369, 10098, 10103
- physiological races 4693, 10104
- Brazil 7748

**Phaseolus contd.****Colletotrichum contd.**

- physiological races contd.
  - Canada 2697
  - Kenya 1568
  - UK 11093
- combining ability, yield components 8574
- Corticium* 6728, 6730, 8586
- Cydia* 6731
- cytoplasmic inheritance 3858
- Phakopsora* 11107
- density of stand 2689, 2694, 8575, 8578
- determinate and indeterminate habit 2689, 2699, 6704, 6711, 6719, 9295, 11096
- development, abnormal 6713
- embryo culture 9291
- Empoasca* 6731, 8589, 10098
- Epinotia* 6731
- flower, colour 6714
- flowering, review 62
- foliage area 6709, 8579
- fruit 11095
- fruit, number 5659
- fruit, size 8578
- Fusarium* 1027, 6728, 6730, 8586
- physiological races 3866
- Fusarium*, technique 11076, 11079
- γ rays 1571, 2691, 9293, 9294
- gene interaction 2687
- genetic resources 1649, 4810, 5651, 6702
- genetic variance 8575
- Xanthomonas* 11094
- genetics
  - chlorophyll 9292
  - Colletotrichum* 8588
  - cytokinins 4684
  - determinate and indeterminate habit 11096
  - development, abnormal 6713
  - flower, colour 6714
  - flowering, review 62
  - Fusarium* 3866
  - habit 6714, 10099
  - height 9292
  - leaf 6709
  - leaf, shape 8575
  - lectin 946
  - Meloidogyne* 2699
  - ozone 3737
  - Phaeoisariopsis* 6726
  - phaseolin 7742
  - photoperiodism 2687, 2690
  - protease inhibitor 932
  - seed, colour 6714, 8575
  - seed, shape 6714
  - sterility, male 3734, 7743, 7744, 11100
  - Uromyces* 6727, 8587
  - viruses 5662, 10098
- genotype × environmental interaction 7745, 11094
- geography 6716
- germination 8581
- germplasm banks
  - Kenya 4685
  - UK 2685
- growth period 1650, 2687, 4686, 6704, 6710, 6711, 7740, 8578, 8582
- habit 2687, 6710, 6714, 8576, 10099
- hairs 10098
- harvesting, mechanical 6714, 8576
- harvesting, mechanical, technique 5650
- heat and drought resistance 4799, 5659
- height 1571, 2699, 3734, 9292, 9293
- heritability 5656, 5660, 7741
- fruit 11095
- globulin 11101
- Hylemya* 8590
- phenols 8584
- protein 11101
- heterosis 8576
- Xanthomonas* 11094
- yield components 8574
- history and evolution 932, 5640, 5641, 6702, 6716, 6717, 7738
- hybridization, interspecific 1570, 1636, 3734, 8577, 9291, 10099, 11097, 11099
- hybridization, technique 5650
- Hylemya*, technique 8590
- inflorescence 8578
- inhibitors 11100
- leaf 6709, 9292

**Phaseolus contd.**

- leaf, shape 8575
- lethals 6713
- light, effect of 8579, 10099, 11096
- linkage
  - determinate and indeterminate habit 11094
  - growth period 11094
- Xanthomonas* 11094
- lodging 8576
- Lygus* 11108
- mechanical injury 8581, 8584
- meiosis 9291, 11097, 11099
- Meloidogyne* 1636, 2699, 3874, 4695, 5648, 7749
- Meloidogyne*, technique 11079
- mutation, induced 1571, 1572, 1573, 3735, 5653, 6709, 6710, 9293, 9294
- chlorophyll 9292, 11098
- height 9292
- leaf 9292
- protein 11103
- neutrons 1572, 9294, 11098
- nitrogen fixation 6719, 6720, 8582, 9295, 10109
- ovule 5640
- penetrance 10098, 11096
- Phaeoisariopsis* 6726, 6729, 8583, 10098
- Phakopsora* 11107
- photoperiodism 2687, 2690, 6730, 8586, 10099
- photosynthesis 2693, 6709, 8579
- Phytophthora*, physiological races 5646
- plant introduction, to Cuba 9214
- pollen 3736, 5640, 5650
- pollination 1570, 3736
- pollination, technique 6867
- pollution, atmospheric 3737
- Pratylenchus*, technique 11079
- precipitation 1569
- Pseudomonas* 948, 4689, 4691, 5661, 6701, 6745, 10110, 10111
- physiological races 4688, 6724, 6725
- physiological races, technique 3738
- Pseudomonas*, technique 6723
- Pythium* 4694, 6730, 8586
- Pythium*, technique 11079
- quality, for cooking 7745
- quality, for food processing 7746
- quality, for nutrition 5658
- radiation 5653
- Rhizobium* 6719, 8582
- physiological races 947, 4687
- Rhizoctonia* 6728, 6730, 8586
- Rhizoctonia*, technique 2698, 11079
- salinity 5642
- Sclerotinia* 949
- seed 4689
- seed, colour 4685, 6714, 7745, 8575, 10098, 10100, 11091
- seed, number 5659
- seed production 10110
- seed, shape 4685, 6714
- seed, size 2688, 4685
- seed, texture 7745
- seed, variegation 4685
- seed, weight 6715
- seedlings 5654
- soil pH 10098
- sowing and planting date 4686, 5659, 8589
- stability 7739, 7741, 11096
- sterility and fertility 1570, 1572, 9291, 10099
- sterility, male 3734, 7743, 7744, 11097, 11099, 11100
- stomata 3737
- taxonomy 6716, 6718
- temperature, effect of 2687, 2690, 3736, 4686, 6713, 6721, 6722
- Tetranychus* 10098
- Thielaviopsis*, technique 11079
- tissue culture 4684
- Uromyces* 5648, 8583, 8585, 8587, 9296, 9297, 10098, 10100, 11091, 11092
- physiological races 6727, 11105
- Brazil 7748
- USA 11106
- varieties
  - Japan 3857, 6707
  - Mexico 6706, 10100
  - Romania 943
  - Sweden 10103



**Phaseolus contd.**

- varieties contd.
  - UK 2812, 3733, 9288, 9289, 9290, 10102, 10104, 10105, 11093
  - USA 944, 5652, 6708
- varieties, classification 6712, 10107
- variety trials
  - Brazil 942, 6705, 11090
  - Cuba 11091, 11092
  - Guatemala 7739
  - Haiti 10101
  - India 8573
  - Kenya 1568
  - Pakistan 6704
  - Yugoslavia 7740
- viruses 948, 5648, 5663, 7750, 8583, 9369, 10110, 10979
  - physiological races 5662, 6724, 10098
- viruses, technique 3237, 6732
- X rays 9293
- Xanthomonas* 1574, 2695, 2696, 4690, 5660, 8583, 10099, 11094, 11104
- xenia 5655
- yield components 1572, 2688, 5656, 5657, 6711, 8574, 8575, 8578, 9293, 11102
  - yield components, technique 5783
- Phaseolus** × *Cajanus*, hybridization, intergeneric 4677
- Phaseolus** × *Lablab*, hybridization, intergeneric 4677
- Phaseolus** × *Vigna*, cowpea
  - hybridization, intergeneric 2686, 4677
  - meiosis 2686
  - sterility and fertility 2686
- Phellinus**, technique, *Populus* 9181
- Phenacoccus**, *Manihot* 1634
- Phialophora**, *Glycine* 2737, 3748, 11167
- Phleum**
  - breeding, Finland 7824
  - chemicals, as plant constituents
    - calcium 3216
    - carbohydrates 6204, 7230
    - lignin 7229
    - nitrogen 7233
    - potassium 3216
    - protein 3216
    - sugar 4257
  - chemicals, general effects, sulphur dioxide 8935
  - chromosomes, accessory 5154
  - chromosomes, number 9718
  - cold resistance 4248, 4257, 7824
  - combining ability 3216
  - desynapsis 6215
  - development and growth 6202
  - digestibility 6202, 7228
  - diploidy 9718
  - dormancy 2194
  - ecotypes 2194, 3206, 5172
  - genetics, desynapsis 6215
  - germination 6216, 8941
  - germplasm banks, Czechoslovakia 4255
  - grazing 2194
  - growth period 5172
  - height 5172
  - heritability 4256, 7233
  - lawns and sports turf 7824
  - mixtures of crops or genotypes 6216
  - multivariate analysis 8941
  - palatability 7228, 7230
  - persistence 2194, 5172
  - photoperiodism 4248
  - pollution, atmospheric 8935
  - quality, for nutrition 3216, 7230
  - seasonal growth 2194
  - silage 3210
  - snow mould, unspecified 6204
  - sterility and fertility 6215
  - temperature, effect of 8941
  - Typhula* 4257
  - varieties
    - Canada 7241
    - Switzerland 3207
    - USA 5171
  - variety trials, Norway 1243
  - yield components 4256
- Phloem** (see also Vascular tissue)
  - Linum* 558
  - Picea* 816
  - Populus* 2567
- Phloem**, colour, *Daucus* 5546, 6602

**Phoenix**

- birds 9141
- Cadra* 2518
- chemicals, as plant constituents
  - alcohol dehydrogenase 3584
  - esterase 3584
  - glutamate oxaloacetate transaminase 3584
  - phosphoglucosmutase 3584
  - phosphoglucose isomerase 3584
  - sucrose 7576
  - sugars, reducing 7576
- chemicals, fertility and sex, effects
  - 4-CPA 4542
  - 2,4-D 4542
- embryo culture 739
- fruit, size 7576
- genetics
  - alcohol dehydrogenase 3584
  - esterase 3584
  - glutamate oxaloacetate transaminase 3584
  - phosphoglucosmutase 3584
  - phosphoglucose isomerase 3584
- gynecium 4542
- Oryzaephilus* 2518
- parthenocarp 4542
- pathology 9141
- sex 4542
- tissue culture 739, 4542
- variety trials, Pakistan 6526
- xenia 7576
- Phoma** (see also *Pleospora*)
  - Brassica*, rape 6437, 10813
  - Helianthus*, sunflower 2422
  - Medicago* 1274
  - Oryza* 8202
  - Solanum*, potato 3323, 3324, 6321, 7835, 10698
  - Sorghum* 2794, 4160
- Phoma**, technique
  - Solanum*, potato 3325, 4352
  - review 510
- Phomopsis**
  - Glycine* 3768, 3769, 10150, 11171
  - Lupinus* 6274
  - Solanum*, egg plant 2657, 6671
- Phomopsis**, technique, *Glycine* 10150
- Photoperiodism**
  - Acer* 2563
  - Allium*, onion 5560, 6608, 8509
  - Alnus* 2563
  - Avena* 3862
  - Betula* 2563
  - Brassica*, rape 3862, 6434, 10813
  - Cajanus* 11192
  - Cicer* 3787, 4671, 5710, 5711, 7731
  - Corchorus* 8316
  - Corylus* 2563
  - crop plants 6857
  - Cucumis*, cucumber 4634
  - Dactylis* 1245, 4248, 6211
  - Fragaria* 10850
  - Glycine* 3862, 5688, 6767, 6777
  - Gossypium* 531, 533, 2306, 3362, 6354, 8304
  - Hordeum* 305, 2028, 3862, 4085, 4093, 7102, 10530
  - Lablab* 988
  - Lactuca* 11000
  - Lens* 4671
  - Linum* 3862
  - Manihot* 3406
  - Nicotiana* 604, 9860, 10787
  - Oryza* 3158, 3159, 3162, 3163, 5093, 5094, 5112, 6153, 7179, 7190, 8908, 9652, 10604, 10605
  - Pennisetum* 5066, 8672
  - Phalaris* 6230
  - Phaseolus* 2687, 2690, 6730, 8586, 10099
  - Phleum* 4248
  - Picea* 2563, 10964
  - Pinus* 810
  - Pisum* 5701
  - Poa* 2189, 8232, 8233
  - Psophocarpus* 5714, 6797, 6799, 8628
  - Ribes*, black currant 10850
  - Saccharum* 5318
  - Salix* 2563
  - Secale* 3012, 3862
  - Secale* × *Triticum*, triticales 1883, 1884

**Photoperiodism contd.**

- Solanum*, potato 6298, 6311, 7326, 7327, 7362, 8294, 9779
- Sorghum* 2087, 3140, 3862, 7136, 8145
- Trifolium*, red clover 1278
- Triticum* 95, 1080, 2913, 3862, 6941, 7923, 8750, 9467, 10315
- Ulmus* 2563
- Vicia*, broad bean 4671, 6687
- Vigna*, cowpea 1637, 11109
- Vigna*, minor species 1644, 4704, 7731
- Zea*, maize 259, 1931, 1962, 4047, 4993, 6024
- Photorespiration**
  - Aegilops* 143
  - crop plants 5784
  - Nicotiana* 9856, 9857
  - Oryza* 5784
  - Pinus* 3643
  - Triticum* 143, 1715
- Photosynthesis**
  - Aegilops* 143, 1723
  - Agropyron* 1723
  - Allium*, onion 7661, 9234
  - Arachis* 6944, 7511
  - Atriplex* 7730
  - Avena* 4929
  - Beta* 10761
  - Beta*, fodder beet 10761
  - Beta*, sugar beet 10761
  - Bromus* 5176
  - Camellia* 9046
  - Capsicum* 7521
  - cereals 80
    - review 1711
  - Cicer* 4671, 11186
  - Citrus*, lemon 2503
  - Citrus*, mandarin 2503
  - Citrus*, orange 2503
  - crop plants 64, 9379
    - review 63
  - Cucumis*, cucumber 5612
  - Eleusine* 3138
  - Festuca* 2197, 5194, 7262, 8242
  - Glycine* 1589, 2722, 4721, 5689, 5794, 6944, 10138, 11137, 11147, 11148, 11151
  - Gossypium* 1343, 2297, 6350
  - Hevea* 2460, 4499
  - Hordeum* 1711, 2044, 3114, 6093, 6944, 7091
  - Ipomoea* 5273
  - Lactuca* 5598
  - Lens* 4671
  - Linum* 7397
  - Lolium* 6222
  - Lycopersicon* 2647, 6654, 6655, 11051
  - Medicago* 3265, 5215, 5222, 7276
  - Nicotiana* 607, 3429, 3430, 6944, 7450
  - Oryza* 359, 369, 1220, 2129, 3172, 4203
    - Glycine* 5122
  - Panicum* 6111
  - Phaseolus* 2693, 6709, 8579
  - Pinus* 811, 812, 3643
  - Pisum* 976, 981, 1602, 2742, 7786, 10169
  - Populus* 6571, 6574
  - Quercus* 8459
  - Ricinus* 9062, 10815
  - Secale* 3001
  - Secale* × *Triticum*, triticales 3001
  - Solanum*, potato 8285
  - Triticum* 143, 174, 175, 198, 200, 1711, 1712, 1723, 1747, 1748, 1750, 1790, 2921, 2931, 3001, 4864, 5870, 6944, 7953, 9456
  - Vigna*, cowpea 4699
  - Vigna*, minor species 4707, 5672
  - Zea*, maize 249, 1927, 1990, 3043, 3049, 4045, 4058, 6006, 6053, 7046, 8816, 9558, 9568, 9569
- Photosynthesis, technique**, *Triticum* 6946
- Phyllostachys**, flowering 2206
- Phyllosticta**
  - Malus* 3529
  - Oryza* 8918
  - Zea*, maize 281
- Phyllotreta**, *Sinapis* 6439
- Phylogeny** (see Evolution, general theory; History and evolution)
- Physalis**, anther culture 7602
- Physalospora**, *Saccharum* 10755



**Physiology**

- Beta*, sugar beet 8325  
 cereals 8694  
 symposium 78, 83, 88, 1705, 1710, 1720  
 crop plants 9379  
 book 7841  
 review 6836  
*Eleusine* 9637  
 grasses 8223, 8224  
 pulses 8570  
*Zea*, maize 1927
- Phytophthora**  
*Atylosia* 7801  
*Cajanus* 2797, 7801  
*Capsicum* 2586, 6468, 8500, 9094, 9909  
 physiological races 9910  
*Carthamus* 5387, 10827  
 chemicals, as plant constituents, glycoprotein 1596  
*Citrus* 3568, 3572, 6517  
*Citrus*, grapefruit 10887  
*Citrus*, lemon 1461, 10887  
*Citrus*, lime 1461, 3568, 10887  
*Citrus*, mandarin 1461, 10887  
*Citrus*, orange 1461, 10887  
*Citrus*, orange  $\times$  *Poncirus* 1461  
*Citrus*, pomelo 3568  
*Fragaria* 1479  
 genetics, *Solanum*, potato 512  
*Glycine* 8598, 11135  
 physiological races 1596, 4742, 5678, 5699, 6753, 7762, 7775, 7776  
 USA 3747, 3748, 3749, 3750, 3751, 11124, 11172  
 physiological races, technique 8612  
*Hevea* 3494, 4500  
*Hibiscus* 1330  
*Lycopersicon* 828, 915, 918, 2591, 2639, 4656, 6665, 7718, 7719, 9279, 9280, 9282  
 book 921  
*Malus* 1432, 8394  
*Medicago* 2228, 2229, 3274, 4288, 5210, 7287, 10656, 10667, 10668  
*Nicotiana* 617, 618, 621, 3425, 4446, 5339, 7435, 7448, 9044, 9852, 10774, 10775, 10776, 10797  
 physiological races 619, 1384, 6418  
 USA 3442  
*Persea* 7579  
*Phaseolus*, physiological races 5646  
*Poncirus* 3568  
*Rubus*, raspberry 9980, 10901  
*Solanum*, potato 489, 1320, 2273, 2274, 3320, 3321, 3327, 3329, 3330, 4333, 4336, 4355, 4356, 4794, 5258, 5260, 5261, 5795, 6311, 6327, 6331, 6332, 7341, 7342, 7343, 7825, 7835, 7836, 8295, 8297, 9771, 9772, 10238, 10693, 10699  
 physiological races 1321, 1322, 1696, 2823, 3328, 6329, 6330  
 Ukrainian SSR 512  
 review 2823, 5262  
*Theobroma* 29, 3451, 4451  
*Vitis* 5502
- Phytophthora**, technique  
*Cajanus* 11075  
*Glycine* 4742, 11124, 11173  
*Medicago* 8258  
*Nicotiana* 2378, 3441
- Picea**  
 altitude 4592  
 botany 4591  
 breeding 4591, 8486  
 France 7644  
 chemicals, as plant constituents  
 acid phosphatase 815  
 aminoacids 6593  
 esterase 815, 9204  
 glutamate oxaloacetate transaminase 9204  
 leucine aminopeptidase 815, 9204  
 phenols 4594, 6593  
 protein 815, 6593  
 resin 816  
 chemicals, fertility and sex, effects  
 GA 4593, 8489  
 NAA 8489  
 chemicals, mutagenic effects, miscellaneous 9174  
 chromosomes, morphology 5531

**Picea contd.**

- climate 6592  
 clines 8488  
 cold resistance 5540  
 cold resistance, technique 10953  
 combining ability 813  
 competition 2582  
 computer simulation 1514  
 cone 8488  
 development and growth 10964  
 diallel analysis 813  
 ecotypes 2563, 3647  
 endosperm 9204  
 flowering 8489  
 genetics  
 esterase 9204  
 glutamate oxalate transaminase 9204  
 leucine aminopeptidase 9204  
 geographical races 6592, 9203, 10964  
 geography 4591  
 habit 7645, 9205  
 heritability 814, 7645  
 heritability, technique 2582  
 hybridization 8488, 9203  
 hybridization, interspecific 8487, 9203  
 increment 806, 813, 814, 2575  
 leaf, weight 806  
 mutation, induced, book 9174  
 phloem 816  
 photoperiodism 2563, 10964  
*Pristiphora* 7644  
 provenance trials  
 Canada 6592  
 Czechoslovakia 4592  
 Norway 10963  
 USSR 3646, 8487, 9202  
 provenance trials, technique 5769  
 quality, of timber 7644, 10040  
 root, size 806  
 root, weight 806  
 seasonal growth 813, 7644, 9203, 10039  
 seed production 4593  
 selection, artificial 1514, 7645  
 sex 4593  
 specific gravity 10039  
 taxonomy 4591, 4594  
 temperature, effect of 10964  
 variation 3647  
 vascular tissue 816  
 weight 806  
 yield components 10040
- Pickling quality** (see Quality, for pickling and salting)
- Pieris**  
*Brassica*, cabbage 866, 1539  
*Brassica*, cauliflower 3684  
*Brassica*, red cabbage 866  
*Piezodorus*, *Glycine* 11175  
*Pigeon pea* (see *Cajanus*)  
 Pigmentation (see Colour)  
*Pimento* (see *Capsicum*)
- Pimpinella**  
 breeding, Ukrainian SSR 9904  
 chemicals, as plant constituents, oil, essential 11201  
 growth period 10193
- Pine** (see *Pinus*)
- Pineapple** (see *Ananas*)
- Pinus**  
*Acantholyda* 5538  
*Alternaria* 4590  
 altitude 5534, 8483, 9199, 10032, 10035, 10957  
 asymmetry 808  
 breeding  
 Georgian SSR 5512  
 Italy 3623  
 USA 6582  
 USSR 790  
*Bursaphelenchus* 6563  
 chemicals, as plant constituents  
 acid phosphatase 812, 6585, 7641  
 aconitase 6585  
 alcohol dehydrogenase 9190, 10954  
 alkanes 2580  
 aspartate aminotransferase 10954  
 caffeic acid 4590  
 calcium 812  
 camphene 1512  
 $\Delta^3$ -carene 9197  
 carotenoids 5535  
 chlorogenic acid 4590  
 chlorophyll 5535

**Pinus contd.**

- chemicals, as plant constituents contd.  
 dihydrokaempferol 7-O-glucoside 10034  
 enzymes 2577, 5532, 9192, 10036  
 esterase 7641, 9190  
 fatty acids 4590  
 glutamate dehydrogenase 6585  
 glutamate oxaloacetate transaminase 5532, 6585, 7641  
 isocitrate dehydrogenase 6585  
 leucine aminopeptidase 6585, 6587, 10954  
 limonene 9194  
 malate dehydrogenase 6585  
 myrcene 9194  
 peroxidase 812, 1508, 3642, 6587, 9190, 10032  
 $\beta$ -phellandrene 9194  
 phenols 1508, 10033, 10034  
 phosphoglucomutase 6585, 10032  
 6-phosphogluconate dehydrogenase 6585, 10954  
 phosphoglucose isomerase 5532, 6585, 10954  
 phosphohexose isomerase 9190  
 $\alpha$ -pinene 1512, 8478, 9194, 9197  
 $\beta$ -pinene 1512, 8478, 9194  
 protein 8479  
 resin 1506, 9197, 10037  
 tannin 4590  
 terpenoids 1512, 3640, 5538  
 chemicals, cytological effects, ethylene oxide 7637  
 chemicals, fertility and sex, effects  
 GA 3638, 3639, 9193  
 NAA 3638, 3639  
 chemicals, general effects  
 nitrogen dioxide 4578  
 ozone 2579, 2580, 2581, 3643, 4578, 10959  
 sulphur dioxide 811, 812, 3642, 4578, 10959  
 chemicals, mutagenic effects, miscellaneous 9174  
 chromosomes, aberrations 4589, 7637  
 chromosomes, morphology 1510, 5531, 6586  
 chromosomes, morphology, technique 791  
 climate 6588  
 cold resistance 1507, 6589, 8476, 8483, 9198, 9199  
 cold resistance, technique 3641, 10953  
 combining ability 5533, 7625, 7635  
*Cronartium* 10960  
 competition 7638  
 cone, colour 9196  
 cone, shape 808  
 cone, size 9195, 9196  
*Cronartium* 1513, 3644, 6591, 7642, 8479, 9200, 9201, 10960, 10961  
 physiological races 8484  
*Cronartium*, technique 6590  
*Crumenulopsis* 5537  
 cuttings 790  
*Cylindrocarpon* 4590  
 density of stand 10038  
 development and growth 8480, 9196  
 diallel analysis 6582  
 embryo 6585  
*Endocronartium* 9201  
 experimental designs 7635  
 flowering 3638, 3639, 9193  
*Fusarium* 4590  
 $\gamma$  rays 4589  
 genetic resources 789, 2576  
 genetic variance 5737, 7634, 9191  
 quality, of timber 8477  
 genetics  
 acid phosphatase 6585, 7641  
 aconitase 6585  
 alcohol dehydrogenase 10954  
 aspartate aminotransferase 10954  
*Cronartium* 6590  
 enzymes 10036  
 glutamate dehydrogenase 6585  
 glutamate oxaloacetate transaminase 5532, 6585  
 isocitrate dehydrogenase 6585  
 leucine aminopeptidase 6585, 6587, 10954  
 limonene 9194



***Pinus* contd.**

## genetics contd.

- malate dehydrogenase 6585
- myrcene 9194
- peroxidase 6587, 10032
- $\beta$ -phellandrene 9194
- phosphoglucosyltransferase 6585, 10032
- 6-phosphoglucosyltransferase dehydrogenase 6585, 10954
- phosphoglucose isomerase 5532, 6585, 10954
- $\beta$ -pinene 9194
- genotype  $\times$  environmental interaction 5533, 6583, 7635, 7640, 8477, 8480
- geographical races 2576, 3637, 3641, 5537, 6589, 6591, 7625, 7639, 8483
- geography 3634, 7639
- germplasm banks, UK 2576
- grafting 790
- Gremmeniella*
  - physiological races
    - Canada 8485
    - USA 10962
- habit 7635, 7638
- heritability 5533, 7634, 7635, 7642, 8482, 9191, 10038
- increment 9189
- quality, of timber 8477
- heterosis 2578
- heterozygosity 2577, 9190, 10032, 10954
- homozygosity 2578
- hybridization, interspecific 807, 1508, 6587, 7636, 8478, 8479, 9192, 10033
- immunology 9195
- inbreeding 10036
- increment 806, 810, 2575, 2577, 5533, 5534, 7636, 9189, 9190, 10035
- leaf 6584
- leaf, anatomy 1508
- leaf, size 3634, 5533
- leaf, weight 806
- linkage 5532
  - alcohol dehydrogenase 10954
  - aspartate aminotransferase 10954
  - leucine aminopeptidase 10954
  - limonene 9194
  - myrcene 9194
  - peroxidase 10032
  - phosphoglucosyltransferase 10032
  - 6-phosphoglucosyltransferase dehydrogenase 10954
  - phosphoglucose isomerase 10954
- meiosis, technique 1509
- multiple alleles
  - enzymes 10036
  - peroxidase 10032
  - phosphoglucosyltransferase 10032
- mutation, induced, book 9174
- nucleolus, number 1510
- nucleolus, size 1510
- photoperiodism 810
- photorespiration 3643
- photosynthesis 811, 812, 3643
- plant introduction
  - from USA 3634
  - to S. Korea 3634
- pollen 2577, 8481, 10957
- pollination 10957
- pollution, atmospheric 2579, 2580, 2581, 3642, 3643, 4578, 10958
- pollution, atmospheric, technique 10959
- polymorphism 6585, 10036
- population genetics 3636
- provenance trials 6583
  - Belorussian SSR 8475
  - Canada 9201
  - German Federal Republic 8476
  - Greece 6588
  - S. Korea 3634, 6584
  - USA 1507, 1511
  - USSR 3635
- quality, of timber 6588, 8477
- respiration 3643
- Rhizoctonia* 4590
- Rhyacionia* 5539, 8476
- root, size 806
- root, weight 806
- Scirrhia* 3645
- seasonal growth 809, 7639, 8480
- seed 6584, 9195
  - book 3637
- seed, colour 3637, 4590, 9196
- seed, size 9196

***Pinus* contd.**

- seed, weight 3637
- selection, artificial 7642, 9189
- sex 8481
- soil types 7640
- specific gravity 8482, 10036
- sterility and fertility 807, 1508, 2578, 3634, 8482
- temperature, effect of 810, 7639, 10961
- Thecodiplosis* 7643
- variation 3640
- varieties, Hungary 4588
- weight 806
- xylem 5536

***Piper***

- chemicals, as plant constituents, piperine 31
- genetic resources 9086
- inflorescence 31, 2449
- Meloidogyne* 2451
- sex 9086
- shade 2450
- variety trials, India 9087

***Pistachio* (see *Pistacia*)*****Pistacia***

- fruit, size 5511
- $\gamma$  rays 2465
- genetic resources 10849
- height 2465
- mutation, induced 2465
- xenia 5511

***Pistil* (see *Gynecium*)*****Pisum***

- Acyrtosiphon* 6789
- aneuploidy 6675, 6782
- Aphanomyces* 3776
  - physiological races, USSR 4754
- Aphanomyces*, technique 11077, 11078
- Ascochyta*, physiological races 3839
- Ascochyta*, technique 11078
- bacteria 4598
- breeding
  - Finland 7828
  - German Federal Republic 2740
  - Kazakh SSR 6779
  - Taiwan 2745
  - UK 10156
  - Ukrainian SSR 979
  - USSR 4274, 4275, 4746, 4747, 10157
- cell culture 6675
- cell division 975
- cell, number 975
- chemicals, as nutrients, nitrogen 7786, 10176
- chemicals, as plant constituents
  - albumin 5705, 8619, 10090
  - aminoacids 982, 9327
  - amylose 10170
  - anthocyanins 5706, 10179
  - arginine 982
  - aspartate aminotransferase 5749
  - chlorophyll 976, 5702, 5704, 10165
  - cysteine 5703
  - cystine 982
  - fructose 1,6-diphosphate aldolase 5749
  - globulin 5705
  - glucose 977
  - hemagglutinins 6676
  - histidine 9327
  - isoleucine 9327
  - legumin 1601, 2802, 3839, 5703, 5705, 6781
  - leucine 9327
  - lysine 5704, 9327
  - maackianin 10167
  - methionine 982, 3839, 5703
  - nitrate reductase 4749
  - nitrite reductase 4749
  - nucleic acids 57, 975, 976, 6784
  - phenylalanine 9327
  - phosphoglucosyltransferase 5749
  - 6-phosphoglucosyltransferase dehydrogenase 7787
  - phytoalexins 2829
  - pigments 2742
  - pisatin 2663, 10167
  - protein 975, 982, 1603, 3780, 3839, 4752, 4753, 5704, 6784, 6787, 7780, 8952, 9321, 10174, 10175, 11178, 11181
  - shikimate dehydrogenase 5749
  - starch 10170
  - sugar 977, 10172

***Pisum* contd.**

- chemicals, as plant constituents contd.
  - sulphydryl compounds 1676
  - trypsin inhibitor 4751, 5704, 6676
  - tryptophan 982, 4752, 5704, 9327
  - tyrosine 8620
  - valine 9327
  - vicilin 2802, 3839, 5705
- chemicals, cytological effects
  - colchicine 980
  - DMSO 974
  - ethyleneimine 980
  - N*-nitroso-*N*-ethylurea 980
  - N*-nitroso-*N*-methylurea 980
- chemicals, general effects
  - chlorate 4749
  - sodium chloride 7787
- chemicals, mutagenic effects
  - diethyl sulphate 981, 1603, 6782, 11180
  - dimethyl sulphate 11180
  - ethyl methanesulphonate 1676, 2742, 3776, 4749, 11180
  - ethyleneimine 981, 1676, 10174, 11180
  - miscellaneous 11178
  - N*-nitroso-*N*-methylurethane 6864
- chloroplasts 976, 1602, 2742, 5749
- chromosomes, aberrations 6675
- chromosomes, morphology 11177
- Cochliobolus* 10167
- cold resistance 6780, 11182
- combining ability 983, 1599, 2741, 3777, 5700, 8621
- yield components 10164
- cytoplasm 6783
- density of stand 3839
- development and growth 10165
- diallel analysis 1599, 2741, 3777, 6785
- embryo 3839
- endomitosis 975
- Erysiphe* 2744, 2745, 2829, 7789, 9328, 9329
- fasciation 974
- fertilization, sexual 7782, 7785
- flowering 5701
  - review 62
- foliage area 7781, 8617, 10165, 10169
- forage 6779, 7828
- fruit, colour 10171
- fungi 4598
- fungi, technique, review 11078
- Fusarium* 5707
  - physiological races 8614, 8615, 8616, 9322, 9323, 10160, 10161, 10162, 10163
  - UK 10159
- Fusarium*, technique 11077, 11078
- $\gamma$  rays 1676, 6864, 9324, 10174, 10777, 11178, 11180
- gene interaction 6785
- genetic resources 4666
- genetic variance
  - protein 11181
  - yield components 10164
- genetics 2739
  - albumin 8619
  - amylose 10170
  - aspartate aminotransferase 5749
  - bacteria 4598
  - chlorophyll 5704
  - Erysiphe* 9329
  - fasciation 974
  - flowering 5701
    - review 62
  - foliage area 7781, 8617
  - fructose 1,6-diphosphate aldolase 5749
  - fungi 4598
  - growth period 6787, 7780
  - habit 7780
  - internode, size 974
  - leaf 3839, 5704
  - leaf, number 7783
  - legumin 2802, 3839, 6781
  - lysine 5704
  - nitrate reductase 4749
  - phosphoglucosyltransferase 5749
  - protein 5704
  - seed 7788
  - seed, number 7780
  - shedding 7788
  - shikimate dehydrogenase 5749
  - starch 6781, 10170
  - stem 5704



**Pisum contd.**

## genetics contd.

- sugar 6781
- trypsin inhibitor 4751, 5704
- tryptophan 5704
- Uromyces* 7790
- vicilin 2802
- viruses 4598
- germination 977
- germplasm banks 11179
  - Sweden 2739
- glass and plastic, cultivation under 6786
- growth period 1603, 1650, 4746, 6780, 6786, 6787, 7780, 7784, 9325
- habit 7780, 11178
- harvest index 10165
- height 1602, 2742, 3779, 6789, 7781, 7784, 8617, 9326
- heritability 1598, 2741, 3778, 7780, 7786
- heterosis 5702, 6785, 6787, 10165
- hybridization 6780
- hybridization, interspecific 7782, 11177
- internode, size 974
- leaf 1600, 3839, 5704, 8620
- leaf, colour 5702
- leaf, number 7783
- leaf, texture 6788
- linkage 974, 3839, 5749
  - albumin 8619
- lodging 7781, 8617
- meiosis 6783, 10166
- mitochondria 6783
- molecular genetics 57
- multiple genes 7783
- mutation 1600, 1676, 2742, 3779, 3839, 4746, 5702, 6781, 7783, 11179
  - chlorophyll 10165
  - foliage area 10169
  - height 9326
  - photosynthesis 10169
  - protein 10175
- mutation, induced 981, 1603, 2742, 3776, 3860, 4749, 6782, 6787, 9324, 10981, 11180
  - growth period 9325
  - habit 11178
  - protein 10174
  - seed, number 9325
  - stem, number 11178
- Mycosphaerella* 2829
- neutrons 11178, 11180
- nitrogen fixation 7786, 10176
- nucleolus 6783, 10166
- nucleus 6783
- ovule 7785
- palatability 6788
- penetrance 7780, 9325
- Peronospora* 10177
- photoperiodism 5701
- photosynthesis 976, 981, 1602, 2742, 7786, 10169
- plant introduction
  - from USSR 10155
  - to Australia 9321
  - to Cuba 9214, 10155
- pleiotropy 5704, 9325
- pollen 6782, 10777
- polyploidy 6675
- protein 10090
- Pythium* 5706, 10179
- Pythium*, technique 11077
- quality, for cooking 10173
- quality, for drying 10171, 10172
- recombination 974, 980
- respiration 7787
- Rhizobium*, physiological races 10176
- Rhizoctonia* 11183
- root, length 9765
- salinity 7787
- seed 982, 6781, 6782, 7788
- seed, colour 5706, 10171, 10179
- seed, number 3777, 3778, 3779, 7780, 9325
- seed, shape 980, 3839, 10171
- seed, size 3839, 10173
- seed, texture 10172
- seed, weight 1599, 2742
- shedding 979, 7788, 8618
- Sitona* 983, 6788, 8620, 8621
- sowing and planting date 2740
- stability 4753
- stem 5704
- stem, number 11178

**Pisum contd.**

- taxonomy 3780, 5705, 8952, 10090
- temperature, effect of 5701
- Uromyces* 4679, 7789, 7790, 10178
- variation 10090
- variegation 6782
- varieties
  - Canada 4748
  - German Federal Republic 822
  - Poland 56
  - Sweden 9405
  - UK 8614, 8615, 8616, 9322, 9323, 10159, 10160, 10161, 10162, 10163
  - USA 8499
  - USSR 10157, 10158
- variety trials
  - Cuba 10155
  - Denmark 3840
  - Ethiopia 4666
- variety trials, technique 4812
- viruses 4598, 4755, 5643, 7791
  - physiological races, German Democratic Republic 6600
- viruses, technique 3237
- water balance 3839
- X rays 1603, 6782, 6787, 9325
- yield components 978, 981, 1598, 1603, 3779, 6780, 6784, 6785, 7784, 9324, 10164, 10168
  - yield components, technique 4750
- Pithitis, Cucurbita* 878
- Plane (see *Platanus*)
- Planococcoides, Theobroma* 5365, 5366
- Plant collections (see Germplasm banks)
- Plant introduction
  - Arachis*
    - from Bolivia 9076
    - from South America 9076
    - to Zimbabwe 9076
  - Beta*, beetroot, to Cuba 9214
  - Brassica*, cabbage, to Cuba 9214
  - Capsicum*
    - from USSR 9905
    - to Cuba 9214, 9905
  - Citrus*, grapefruit
    - from Georgian SSR 9954
    - to Azerbaijan SSR 9954
  - Citrus*, lemon
    - from Georgian SSR 9954
    - to Azerbaijan SSR 9954
  - Citrus*, mandarin
    - from Georgian SSR 9954
    - to Azerbaijan SSR 9954
  - Citrus*, orange
    - from Georgian SSR 9954
    - to Azerbaijan SSR 9954
  - Citrus*, orange × *Poncirus*
    - from Georgian SSR 9954
    - to Azerbaijan SSR 9954
  - Citrus*, pomelo
    - from Georgian SSR 9954
    - to Azerbaijan SSR 9954
- Coffea*
  - from Brazil 6422
  - from Portugal 6423, 6424
  - to Angola 6423, 6424
  - to Indonesia 6422
- crop plants
  - to Japan, symposium 9370
  - to USA 1670
- Eucalyptus*
  - from Australia 798
  - to Mexico 798
- Fortunella*
  - from Georgian SSR 9954
  - to Azerbaijan SSR 9954
- fruit crops, to Japan 9373
- Glycine*
  - from Asia 3759
  - to USA 3759
- grasses, to Japan 9372
- Hordeum*
  - from Netherlands 1154
  - from Spain 1154
  - from UK 1154
  - to Japan 6074
  - to USA 1154
- Lycopersicon*, to Cuba 9214
- Medicago* 2210
  - to Australia 4278
- Mentha*
  - from Bulgaria 8652
  - to Ukrainian SSR 8652

**Plant introduction contd.**

- Phaseolus*, to Cuba 9214
- Pinus*
  - from USA 3634
  - to S. Korea 3634
- Pisum*
  - from USSR 10155
  - to Australia 9321
  - to Cuba 9214, 10155
- Pseudotsuga*
  - from North America 7653
  - to German Federal Republic 7653
- Raphanus*, to Cuba 9214
- Saccharum*, to Japan 9371
- Solanum*, egg plant, to Cuba 9214
- Solanum*, potato
  - from Netherlands 8277
  - to Brazil 8277
- Sorghum* 7130
- Theobroma*, to Ghana, review 6428
- Triticum*, to Upper Volta 9434
- Vitis*, to Yugoslavia 10006
- Zea*, maize
  - from USSR 8797
  - to Rwanda 8797
- Plant introduction, technique, *Solanum*, potato 4330
- Plantago*, genetic resources 10223
- Plantain (see *Musa*; *Plantago*)
- Plasmagones (see Cytoplasmic inheritance)
- Plasmodiophora*
  - Brassica* 3661, 5575
    - physiological races 1535, 5579, 7671
    - Canada 7673
  - Brassica*, cabbage 1539, 5566, 6618, 9241, 10998
    - physiological races 2611
  - Brassica*, cabbage × *Brassica*, sprouting broccoli × *Brassica*, swede 5585
  - Brassica*, cabbage × *Brassica*, swede 5585
  - Brassica*, cauliflower 3682
    - physiological races 2611
  - Brassica*, Chinese cabbage 5584, 6618
    - physiological races 2611
    - UK 6283
  - Brassica*, kale 6618
  - Brassica*, kale × *Raphanus* 3662
  - Brassica*, oil crops, physiological races 2611
  - Brassica*, rape 3466, 7837
    - physiological races, UK 6283
  - Brassica*, swede 4320, 5245, 5246, 6618, 7834, 8964
    - physiological races, UK 6283
  - Brassica*, swede × *Brassica*, turnip 7834
  - Brassica*, turnip 479, 3306, 3307, 5246, 5584, 6618, 8964
    - physiological races, New Zealand 4320
  - Raphanus* 6618
    - physiological races 4605
- Plasmodiophora*, technique
  - Brassica* 5579, 7671
  - Brassica*, rape 5577
- Plasmopara*
  - Helianthus*, sunflower 643, 644, 1411, 2422, 2423, 5386, 6448, 6450, 6451, 7493, 9893
    - physiological races 4475
  - Vitis* 780, 782, 783, 1493, 2554, 3615, 6548, 6558, 8450, 8451, 8453, 9158, 9161, 9162, 9167, 9168, 9374, 10007, 10014
- Plastic, cultivation under (see Glass and plastic, cultivation under)
- Platanus*
  - chemicals, general effects
    - nitrogen dioxide 4578
    - ozone 4578
    - sulphur dioxide 4578
  - pollution, atmospheric 4578
- Pleiotropy 3809, 5737
  - Cicer* 2747
  - Hibiscus* 9832
  - Hordeum* 1031, 6085, 8838, 8850
  - Pisum* 5704, 9325
  - Sorghum* 2081, 5077
  - Triticum* 1085, 6868, 6916, 8764, 10277
  - Zea*, maize 6868
- Pleospora*
  - Beta*, sugar beet 3394
  - Ipomoea* 4802
  - Zizyphus* 10003



**Ploidy***Betula* 9185*Lolium* 9732, 9733**Plum** (see *Prunus*, plum)**Plutella**, *Brassica*, cauliflower 3684**Poa**

altitude 2188

apomixis 2186, 2790, 4234, 8231, 8232, 8233, 8936

breeding

Czechoslovakia 1669

Finland 7824

USSR 5162

chemicals, as plant constituents

chlorophyll 5166

esterase 2187

euchromatin 10627

heterochromatin 10627

iron 5166

peroxidase 2187

protein 8934

chemicals, general effects

nitrogen dioxide 5160

oxadiazon 3215

ozone 5160

sulphur dioxide 5160, 7226

chromosomes, accessory 10627

chromosomes, number 3214

*Cochliobolus* 2191

cold, effect of 7226

cold resistance 1243, 2190, 8230, 8936

colour 5166

combining ability 2186

competition 2189, 9721

*Drechslera* 5163, 6205, 8230

ecotypes 2188, 9721

epidermis 6206

*Erysiphe* 4249, 5163, 6205*Fusarium* 5163 $\gamma$  rays 2186genotype  $\times$  environmental interaction 2190

geography 3214, 4234

germination 8937

growth period 8937

heat and drought resistance 6205, 8229

height 7226, 9720

*Helminthosporium* 416, 2185

heritability 2186

hybridization, interspecific 8231, 8232, 8233

lawns and sports turf 416, 2185, 2188, 5164, 5167, 6205, 7226, 7824, 8228, 8230, 8234, 8936, 8938

leaf 6206

leaf, colour 8230

leaf, shape 8937

light, effect of 8232, 8233

lodging 8937

meiosis 10627

*Microneectriella* 6205

mixtures of crops or genotypes 8228, 9721

mowing and cutting 9721

mutation, induced 2186

nondisjunction 10627

persistence 8936

photoperiodism 2189, 8232, 8233

pollution, atmospheric 5160, 7226

polyploidy 2186, 2790

*Puccinia* 416, 2185, 5163, 8230

rhizome, number 2189

seasonal growth 8231

seed production 2188

seedlings 8232, 8233

sexual reproduction 2186, 8232, 8233

*Sphenophorus* 8938

stability 2188, 2190

stomata 6206

synthetic varieties 5165

tillering 2189

*Typhula* 6205*Ustilago* 416, 6205

variation 9720

varieties

Sweden 8936

USA 416, 5163, 5164, 5165

varieties, classification 2187, 6206

variety trials

Norway 1243

UK 7226, 8230

USSR 9719

water balance 8234

**Poa** contd.

yield components 9720

**Poa**  $\times$  *Festuca*, hybridization, intergeneric 8222**Poa**  $\times$  *Lolium*, hybridization, intergeneric 8222**Poaceae**, pollen, technique, review 22**Podosphaera***Malus* 667, 1436, 3497, 3512, 3514, 3529, 5795, 10863, 10864*Pyrus* 6491**Pollen***Agropyron* 9408*Allium*, garlic 8513*Avena* 9424*Benincasa* 5616*Beta*, sugar beet 6389, 6391*Brassica* 2607, 6615*Brassica*, cabbage 3652*Brassica*, cauliflower 2613*Brassica*, sprouting broccoli 3652

cereals 61, 82

*Chrysanthemum* 2461*Cicer* 987, 2751*Citrus*, mandarin 4535*Citrus*, orange 4535*Cocos* 2517*Cola* 9051*Corchorus* 7402*Cucumis*, cucumber 882, 2628*Cucurbita* 4631*Cucurbitaceae* 5600*Datura* 7527*Elymus* 9408*Eremopogon* 6240

forest trees 2562

*Fragaria* 3600

fruit crops 61

*Glycine* 1591, 5640*Gossypium* 10715

grasses 10625

*Grewia* 2534*Helianthus*, sunflower 2414, 2415, 2416, 2417, 5381*Hordeum* 5026, 6087, 9408, 9424*Luffa* 5615*Lycopersicon* 911, 3715, 7703, 10078*Lycopersicon*  $\times$  *Solanum* 7703*Macroptilium* 5640*Macrotyloma* 5640*Malus* 686, 3523, 7551, 9106, 9927*Manihot* 5334*Medicago* 2217, 3259, 3264, 5219*Momordica* 1551*Nicotiana* 4440, 5352, 10777, 10783, 10784*Olea* 646*Oryza* 3180, 8164, 8171, 10597

palms 3582

*Papaver* 1389*Petunia* 6847*Phaseolus* 3736, 5640, 5650*Pinus* 2577, 8481, 10957*Pisum* 6782, 10777*Poncirus* 4535*Populus* 5517*Prunus*, almond 10944*Prunus*, apricot  $\times$  *Prunus*, cherry 2487*Prunus*, peach 1457*Prunus*, plum 8397, 9938, 9941, 9943*Raphanus* 3652*Ribes*, black currant  $\times$  *Ribes*, gooseberry 2523*Saccharum* 7414*Secale* 232, 3021, 9408, 9424*Secale*  $\times$  *Triticum* 9424*Secale*  $\times$  *Triticum*, tritcale 5944*Solanum*, potato 2260, 5251, 7836, 10687, 10688*Sorghum* 10576*Trichosanthes* 5616*Trigonella* 2248*Triticum* 6952, 7886, 9408, 9424, 9470, 10333

vegetable crops 61

*Vicia*, broad bean 3725*Vigna*, cowpea 5640, 9408*Vigna*, minor species 3741, 5640*Vitis* 61, 10010*Zea*, maize 1961, 1966, 1980, 3045, 4966, 6033, 8042, 8054, 10452*Zingiber* 2454*Zizyphus* 10000**Pollen**, colour*Brassica*, oil crops 633*Gossypium* 555**Pollen**, number*Oryza* 9692*Triticum* 2899**Pollen**, shape, *Carum* 8654**Pollen**, size*Carum* 8654*Elymus* 4272*Euchlaena* 9570*Fragaria* 3601*Gossypium* 535*Hordeum* 3836*Kochia* 478*Lactuca* 3687*Rubus*, raspberry 8423*Solanum*, potato 5251*Vigna*, minor species 9306*Zea*, maize 8039, 9570**Pollen**, size, technique*Hordeum* 6881*Secale* 6881*Secale*  $\times$  *Triticum*, tritcale 6881*Triticum* 6881*Zea*, maize 6881**Pollen**, technique

cereals 5804, 5810

crop plants, review 22

*Nicotiana* 2370, 3433, 8344*Poaceae*, review 22*Prunus*, peach 7534*Pyrus* 7534*Secale* 5810*Secale*  $\times$  *Triticum* 5810*Triticum* 5810*Zea*, maize 8039, 9555**Pollination** 8669*Actinidia* 2538*Aegilops* 7973*Anacardium* 37*Asclepias* 7407*Brassica*, rape 2401, 9058*Bromus* 3220*Capsicum* 653, 3485

cereals 1706

*Citrus* 10885*Cocos* 7572*Cola* 9051*Corylus* 785*Cratallaria* 2331*Cucumis* 10977*Cucumis*, cucumber 882, 11029*Cucumis*, melon 874*Cucurbita* 878, 11016, 11017*Elettaria* 32*Ficus* 728*Gossypium* 3363

grasses 10626

review 10625

*Helianthus*, sunflower 640, 641, 2420, 3471, 5380, 6447, 8368*Hordeum* 7079*Juglans* 10018*Lespedeza* 9758*Lotus* 473, 1291*Luffa* 5615*Lycopersicon* 4645, 9268*Malus* 4512, 4513, 5428, 6483, 8387, 8391, 9106, 9927*Mangifera* 737*Medicago* 447, 449, 1257, 8255, 8953*Nicotiana* 2372, 4435, 6401*Onobrychis* 5234*Passiflora* 5485*Phaseolus* 1570, 3736*Pinus* 10957*Prunus*, almond 4577*Prunus*, apricot 3544*Prunus*, cherry 3544, 5440*Prunus*, peach 3544*Prunus*, plum 9943*Psophocarpus* 6798, 6799, 8626, 8651*Pyrus* 3498, 10870*Raphanus* 3652*Saccharum* 4405*Salvia* 9341*Secale*  $\times$  *Triticum*, tritcale 1879*Solanum*, egg plant 653*Solanum*, potato 1312, 10690*Sorghum* 5082, 10576*Theobroma* 29*Trifolium* 4292



**Pollination contd.**

- Trifolium*, red clover 1257, 3281  
*Triticum* 3919  
*Vaccinium* 6532, 6533, 10917  
*Vicia*, broad bean 940, 2683, 4675, 7736  
*Vigna*, cowpea 4698  
*Vigna*, minor species 10125  
*Vitis* 2551, 3611, 4567  
*Zea*, maize 1963, 1964, 1966, 7050, 8042, 10471

*Zingiber* 6469

**Pollination, technique 5751**

- Arachis* 7512  
*Avena* 3995  
*Brassica*, Brussels sprouts 2615, 3686, 5571, 7674  
*Brassica*, cabbage 5588  
*Capsicum* 6867  
*Carica* 5462  
*Citrus*, mandarin 3574  
*Cocos* 7574  
*Cucumis*, cucumber 6642, 6867  
*Cucumis*, melon 6867  
*Glycine* 9308  
*Hordeum* 5039, 9607  
*Lycopersicon* 6867  
*Malus* 6484  
*Mangifera* 5460  
*Medicago* 8256  
*Nicotiana* 2371  
*Phaseolus* 6867  
*Sorghum* 4147  
*Trifolium* 7290  
*Vicia*, broad bean 6685  
*Zea*, maize 6044, 8040, 9572

**Pollution, atmospheric**

- Agrostis* 7226  
 crop plants 41  
*Dactylis* 8935  
*Festuca* 5160, 7226, 8935  
 forest trees 5514  
 grasses 5160  
*Holcus* 8935  
*Larix* 3648  
*Lolium* 7226, 8935  
*Nicotiana* 7459, 7460  
*Oryza*, review 381  
*Phaseolus* 7377  
*Phleum* 8935  
*Pinus* 2579, 2580, 2581, 3642, 3643, 4578, 10958  
*Platanus* 4578  
*Poa* 5160, 7226  
*Populus* 10028  
*Salix* 2572  
*Spinacia* 2619

**Pollution, atmospheric, technique 3804**

- Nicotiana* 2378  
*Pinus* 10959

**Polyembryony and twinning**

- Aegilops* 1069  
*Aesculus* 5782  
*Beta* 5325  
*Capsicum* 1417  
*Citrus* 8415  
*Citrus*, grapefruit × *Poncirus* 717, 726  
*Citrus*, lemon × *Poncirus* 726  
*Citrus*, mandarin 3573, 5451, 9132, 10884  
*Citrus*, mandarin × *Citrus*, orange 5451  
*Citrus*, mandarin × *Poncirus* 717, 726  
*Citrus*, orange 5451  
*Citrus*, orange × *Poncirus* 726  
*Citrus*, pomelo × *Poncirus* 726  
*Cocos*, review 3583  
*Corylus* 5782  
*Festuca* 7248  
*Fortunella* × *Poncirus* 726  
 fruit crops 5782  
*Juglans* 5782  
*Linum* 8311, 9012, 9013  
*Lotus* 10678  
 nuts 5782  
*Prunus*, plum 5782  
*Quercus* 5782  
*Raphanus* 10987  
*Ribes*, red currant 744  
*Sorghum* 7137  
*Triticum* 108, 1069  
*Vitis* 7612

**Polygenes** (see Multiple genes)

**Polygonum**, polyploidy 7311

**Polyhaploidy** (see Haploidy)

**Polymorphism 1000, 1003, 2803, 3806, 8663**

- Avena* 5807  
*Cedrus* 10041  
*Elaeagnus* 6564  
*Haloxylon* 6564  
*Hordeum* 5807  
*Lotus* 4312, 9762  
*Pinus* 6585, 10036  
*Populus* 6564  
*Psophocarpus* 8626  
*Trifolium*, minor species 4301  
*Trifolium*, white clover 7298  
*Ulmus* 6564  
*Vicia*, broad bean 8571  
*Vicia*, vetch 8571  
*Vitis* 780

**Polymyxa**

- Beta* 6377  
*Beta*, sugar beet 6377

**Polyplody 2790, 4786, 5734, 5739, 5747, 5768, 6835, 6839, 6844, 9353, 9384**

- Aegilops* 1746, 9495  
*Agropyron* 428, 2201, 2203, 2204, 3230, 4271, 7911, 8246, 8949, 9408, 9742  
*Agropyron* × *Triticum* 1772, 2903, 2904  
*Allium*, garlic 5562  
*Allium*, minor species × *Allium*, onion 8507  
*Allium*, onion 19, 1008, 5560, 7661  
*Aloe* 4497  
*Alopecurus* 4273  
*Amelanchier* 766  
*Anthyllis* 4316, 5240  
*Arachis* 2209, 2795, 6457, 7508, 7510  
*Arctagrostis* 5201  
*Artemisia* 3488  
*Avena* 1898, 5964, 10384  
*Beta* 1364  
*Beta*, fodder beet 7312  
*Beta*, sugar beet 574, 577, 1367, 2342, 3396, 6382, 7422, 7423, 7424, 7850, 9842, 9845, 10763, 10765, 10766

book 6832

*Brassica* 1532, 2605, 3672, 8514

review 855

*Brassica*, cabbage × *Raphanus* 2606, 3660

*Brassica*, oil crops 3455

*Brassica*, rape 2605, 3454

*Brassica*, rape × *Brassica*, turnip 3303

*Brassica* × *Raphanus* 855, 3660, 9407

*Brassica*, sprouting broccoli 1544

*Bromus* 10630, 10631

*Cajanus* 6817

*Calamagrostis* 5202

*Camellia* 2389, 9406, 9867, 9869

*Capsicum* 8379

*Carum* 8654

*Cenchrus* 3229

cereals 82, 3881

*Chenopodium* 6200

*Chrysanthemum* 7850

*Citrullus* 2467, 2624

*Citrus* 8415, 9955

*Citrus*, grapefruit × *Citrus*, pomelo 9133

*Citrus*, lemon 1014, 2503, 10217, 10219

*Citrus*, mandarin 2503

*Citrus*, orange 2467, 2503, 9966

*Citrus*, orange × *Poncirus* 9966

*Citrus*, pomelo 9136

*Coffea* 8352, 8354, 8355, 9048

conifers 5744

*Corchorus* 4400

crop plants 60, 4803, 6845, 6865, 7855, 9358, 9407

review 6836, 7850, 7853, 7854

*Cucumis* 2635

*Cucumis*, melon 874, 2589

*Cynodon* 421, 5173, 10629

*Datura* 9350

*Elymus* 4272, 9408

*Erianthus* × *Saccharum* 7416

*Euchlaena* 10513

*Fagopyrum* 4230, 8926, 8931, 8932

*Festuca* 1242, 2790, 3226, 5192, 6226, 6227, 7248, 7257, 7262, 9384, 10644

*Festuca* × *Lolium* 3222, 5182, 7227, 8238

forest trees 5513, 8458

*Fragaria* 6537

*Fraxinus* 10031

**Polyplody contd.**

- fruit crops 7533, 10852  
*Glycine* 2720, 3754, 4720, 7765, 8601  
*Gossypium* 531, 533, 535, 1328, 2293, 7384, 7385, 9809, 10710  
*Helianthus*, sunflower 2413, 7850  
*Hibiscus* 7403  
*Hierochloe* 6463  
*Holcus* 6239  
*Hordeum* 310, 1151, 2026, 2054, 3102, 3836, 4092, 5034, 7097, 7850, 8070, 8104, 8109, 8110, 8836, 8844, 8847, 9383, 9408, 9605  
*Hordeum* × *Secale* 7089  
*Ipomoea* 7850, 8301  
*Lactuca* 3687, 10975  
*Lavandula* 6462, 10834, 10836, 10839  
*Linum* 8311, 9012, 9013  
*Lolium* 52, 415, 423, 424, 1248, 5177, 5181, 6202, 6222, 6224, 7247, 7248, 7250, 7251, 7254, 7850, 8237, 8946, 9384, 10636  
*Lotus* 4311, 5238, 10678  
*Lycopersicon* 905, 3708, 3710, 4641, 4644, 10077, 10978, 11052  
*Malus* 686, 2475, 3523, 5426, 5427, 6480, 7548, 7549, 7550, 9105, 9927, 10863  
*Matricaria* 3489  
*Medicago* 2209, 3251, 3264, 4290, 5215, 5221, 7275, 7276, 7850, 10662  
*Mentha* 992, 4768, 6823, 9339  
*Morus* 731, 732, 2511, 2513, 3577, 3578, 3579, 3580, 4539, 6520, 7569, 9137, 9138, 9974  
*Musa* 763, 7597  
*Nicotiana* 592, 593, 595, 2364, 2369, 3437, 5346, 6399, 6418, 8342, 9859, 9862, 10782  
*Onobrychis* 467  
*Oryza* 2843, 3178, 4197, 4205, 7188, 7850, 8165, 9679  
*Panax* 4496  
*Panicum* 320, 6111, 10556  
*Papaver* 1389, 8358  
*Paspalum* 2198  
*Pelargonium* 3834, 8676  
*Pennisetum* 6113, 10560, 10563  
*Pisum* 6675  
*Poa* 2186, 2790  
*Polygonum* 7311  
*Populus* 2565, 7850  
*Prunus*, apricot 10874  
*Prunus*, cherry 10874  
*Prunus*, peach 10874  
*Prunus*, peach × *Prunus*, plum 10874  
*Prunus*, plum 706, 7562, 10874  
 review 5513, 5745, 5746, 6833, 6834, 6837, 6838, 6841  
*Ribes* 8424  
*Ribes*, black currant 743, 7585  
*Ribes*, gooseberry 743  
*Ricinus* 9062, 10815  
*Rubus*, raspberry 7580  
*Sansevieria* 2330  
*Santalum* 2448  
*Secale* 230, 231, 232, 233, 1907, 1910, 3017, 4002, 4939, 5975, 6881, 7017, 7850, 8788, 9408, 9512, 9514, 9516, 10247, 10418  
*Secale* × *Triticum* 5810, 9424, 10301  
*Secale* × *Triticum*, triticale 2994, 3000, 3982, 5939, 5940, 5941, 5942, 5946, 6881, 7977, 9407  
 review 7851  
*Solanum* 2457, 7599, 7600, 10845  
*Solanum*, egg plant 926  
*Solanum*, potato 489, 493, 2260, 4327, 4338, 6302, 6305, 6307, 6313, 7324, 7333, 7850, 8280, 8282, 8293, 10687  
*Sorghum* 3144, 4135, 5076, 6123  
*Stylosanthes* 4314  
 symposium 5743, 6832, 6840, 7849  
*Thymus* 5716  
*Trifolium* 7290, 10669  
*Trifolium*, red clover 54, 458, 1279, 1280, 2231, 2232, 2233, 2235, 4294, 5229, 7292, 7293, 8957, 10672  
*Trifolium*, white clover 1285  
*Trigonella* 4315, 6276  
*Triticum* 1059, 1746, 1778, 1786, 1820, 2903, 2904, 2937, 3877, 4852, 6881, 6901, 6964, 7850, 7852, 9408, 10331



**Ploidy contd.**

- Urginea* 9096
- Vaccinium* 10917
- Valeriana* 664, 7526
- Vicia*, broad bean 6686
- Vicia*, vetch 6686
- Vigna*, cowpea 6675
- Vigna*, minor species 953, 10119
- Vitis* 1490, 1491, 8439, 10934
- Zea*, maize 6017, 6881, 7850, 9550, 10459
- Polyploidy, technique** 6842, 6843
  - Camellia* 2390
  - conifers 805
  - forest trees 2562
  - Nicotiana* 7444
  - Secale* 3018
  - Vitis* 9163
- Polysomaty** (see Mixoploidy)
- Polysomics** (see Aneuploidy)
- Polystigma**
  - Prunus*, almond 6562
  - Prunus*, plum 6504
- Pomegranate** (see *Punica*)
- Pomelo** (see *Citrus*, pomelo)
- Poncirus**
  - chemicals, as plant constituents, gentisoylglucose 2505
  - cold resistance 9128
  - fruit 726
  - $\gamma$  rays 2504
  - history and evolution 726
  - meiosis 726
  - Phytophthora* 3568
  - pollen 4535
  - precocity of bearing 9972
  - rootstock 9962
  - seed 726
  - viruses 2505
- Poncirus*  $\times$  *Citrus***, hybridization, intergeneric 1458, 2504, 2505, 5451
- Poncirus*  $\times$  *Citrus*, grapefruit**, hybridization, intergeneric 717, 726
- Poncirus*  $\times$  *Citrus*, lemon**, hybridization, intergeneric 726, 5454, 9965, 10890
- Poncirus*  $\times$  *Citrus*, mandarin**, hybridization, intergeneric 717, 726, 5451, 9965
- Poncirus*  $\times$  *Citrus*, orange**, hybridization, intergeneric 726, 1461, 2504, 2506, 9128, 9954, 9962, 9965, 9966, 10214
- Poncirus*  $\times$  *Citrus*, orange  $\times$  *Fortunella***, hybridization, intergeneric 9961
- Poncirus*  $\times$  *Citrus*, pomelo**, hybridization, intergeneric 717, 726
- Poncirus*  $\times$  *Fortunella***, hybridization, intergeneric 726, 2504
- Pooideae**, taxonomy 4245
- Popcorn** (see *Zea*, popcorn)
- Poplar** (see *Populus*)
- Poppy** (see *Papaver*)
- Population genetics** 7, 10, 11, 12, 998, 999, 1000, 1001, 1613, 1614, 1616, 1621, 2775, 2776, 2778, 2779, 2836, 2837, 2838, 2839, 3806, 3807, 3808, 3809, 3811, 3812, 3813, 3814, 3815, 3816, 3817, 4774, 4775, 4776, 4777, 5721, 5723, 5724, 5726, 5730, 5731, 5732, 5733, 5736, 5750, 5753, 5754, 6828, 6829, 6846, 7808, 7810, 7812, 8658, 8659, 8663, 9343, 9345, 10201
- Avena* 4932
- Avena* (weed) 2021
- book 5718
- crop plants 59
- forest trees, book 6567
- Hordeum* 2021
- Lolium* 5178
- Nicotiana* 7440, 10778
- Pinus* 3636
- Populus* 6572
- review 5734, 5738
- Trifolium*, white clover 7297
- Populus**
  - anther culture 10026
  - Aplanobacter* 7631
  - bark, texture 795
  - book 4580
  - breeding 4580
  - German Federal Republic 7629
  - Italy 3623
  - chemicals, general effects
  - atrazine 9183
  - Hypoxylon* toxin 3627, 9180

**Populus contd.**

- chemicals, general effects contd.
- prometryne 9183
- simazine 9183
- sulphur dioxide 10028
- chemicals, mutagenic effects, *N*-nitroso-*N*-methylurea 7630
- chloroplasts 7630
- chromosomes, number 7848
- Chrysomela* 5520, 10029
- competition 9177
- Cryptodiaportha* 1502, 3628, 7631
- development and growth 796, 6574, 7629, 10025
- electrical properties 5518, 9181
- genotype  $\times$  environmental interaction 3627
- geography 4580
- heat and drought resistance 6576, 8463, 10025
- history and evolution 7850
- hybridization 4580
- hybridization, interspecific 794, 797, 3628, 4583, 5517, 5519, 6573, 6574, 6578, 7629, 9177, 9179, 10029
- Hypoxylon* 3627, 9180
- increment 794, 2566, 2568, 2569, 6571, 9177, 10027
- laser beams 794
- leaf 6575
- leaf, anatomy 6573, 6575
- light, effect of 794
- Melampsora* 797, 4583, 9182
- physiological races 6577
- mixtures of crops or genotypes 7850
- mutation, induced 3860, 7630
- Odocoileus* 5519
- palatability 5519
- Phellinus*, technique 9181
- phloem 2567
- photosynthesis 6571, 6574
- pollen 5517
- pollution, atmospheric 10028
- polymorphism 6564
- polyploidy 2565, 7850
- population genetics 6572
- precipitation 2568
- provenance trials
  - India 8460
  - USA 1502
  - USSR 9178
- provenance trials, technique 10948
- quality, of timber 2569, 8462
- quality, of wood pulp 793
- root 796
- rooting capacity 4582
- seasonal growth 2566
- sex 1503, 3626
- specific gravity 8462
- stem, size 9177
- sterility and fertility 5517
- stomata, number 10025
- stomata, size 10025
- taxonomy 4580, 6575
- temperature, effect of 2566, 2568
- variation 6572
- variegation 7630
- varieties, Canada 4581
- variety trials, USSR 792, 793
- vascular tissue 6573
- vegetative reproduction 6572
- Venturia* 6578
- water balance 3625, 8461, 10025, 10028
- wireless waves 794
- xylem 2565, 2567
- Potato** (see *Solanum*, potato)
- Pratylenchus**
  - Medicago* 3276
  - Rubus*, raspberry 10901
  - Secale* 4006
  - Zea*, maize 10507
  - Zea*, sweet corn 4075
- Pratylenchus, technique**
  - Nicotiana* 2378
  - Phaseolus* 11079
- Precipitation**
  - Hordeum* 3121, 5038
  - Phaseolus* 1569
  - Populus* 2568
  - Trifolium*, red clover 5229
  - Triticum* 7950
  - Vigna*, cowpea 1637

**Precocity of bearing**

- Betula* 9184
- Citrus*, grapefruit 5453
- Citrus*, grapefruit  $\times$  *Citrus*, mandarin 5453
- Citrus*, mandarin 5453
- Citrus*, mandarin  $\times$  *Citrus*, orange 5453
- Citrus*, orange 5453
- Citrus*, pomelo 5453
- Eucalyptus* 6581
- Malus* 1443, 2468, 3512, 4511, 9928
- Poncirus* 9972
- Prunus*, cherry 2496
- Pyrus* 3507, 3511, 3536, 3537, 6491, 6492
- Prickles** (see Spines)
- Pristiphora**, *Picea* 7644
- Processing quality** (see Quality, for food processing; Quality, for industrial processing)
- Protoplast fusion** 8660, 9392, 11203
  - Arabidopsis* - *Brassica* 3671
  - Brassica* - *Arabidopsis* 3671
  - Brassica*, rape 4463
  - crop plants 1674, 2375, 3825, 5790, 6845, 8683, 9357
  - review 8687
  - symposium 8667
- Daucus* 10045
- Daucus* - *Vicia*, broad bean 1673
- Glycine* - *Nicotiana* 1373
- Glycine* - *Oryza* 10595
- Hordeum* - *Vicia*, broad bean 8834
- Lycopersicon* - *Solanum*, potato 10237, 11042
- Medicago* 7817
- Nicotiana* 590, 594, 2375, 4791, 5349, 6400, 7817, 8331, 8339, 8340, 8343, 9853, 10790
- Nicotiana* - *Glycine* 1373
- Nicotiana* - *Solanum* 7441
- Oryza* - *Glycine* 10595
- Petunia* 1004
- Petunia* - *Triticum* 9447
- review 4791, 5752, 8661, 8662
- Solanum* - *Nicotiana* 7441
- Solanum*, potato 487, 4327, 6300, 8683
- Solanum*, potato - *Lycopersicon* 10237, 11042
- Sorghum* - *Zea*, maize 7039
- symposium 7816
- Triticum* - *Petunia* 9447
- Vicia*, broad bean - *Daucus* 1673
- Vicia*, broad bean - *Hordeum* 8834
- Vitis* 6557
- Zea*, maize - *Sorghum* 7039
- Protoplast fusion, technique, *Solanum***, potato 7317
- Protoplasts** 4787, 9392
  - Allium*, chives 2597
  - Brassica*, Chinese cabbage 2597
  - Carica* 5463
  - Citrus*, orange 3825
  - Coffea* 5360
  - crop plants, review 8687
  - Festuca* 5155
  - Glycine* 1583
  - Ipomoea* 2284
  - Lolium* 5155
  - Lycopersicon* 9272, 11047
  - Medicago* 2220, 7817
  - Nicotiana* 594, 3825, 4789, 5346, 6400, 7817, 8338, 9041, 9857, 10793
  - Oryza* 8910
  - review 1010
  - Solanum*, egg plant 8566
  - Solanum*, potato 2265, 4789, 6311, 10689
  - Trifolium*, minor species 10676
  - Triticum* 1844
  - Zea*, maize 10501
- Protoplasts, technique**
  - cereals 8698
  - crop plants 2817
  - Nicotiana* 2374, 9040
- Provenance trials, technique**
  - forest trees 6566, 10948
  - Picea* 5769
  - Populus* 10948
- Provenances** (see Geographical races)
- Pruning**
  - Citrus*, orange 10889
  - Ficus* 728
  - Glycine* 5695



**Pruning contd.**

- Lycopersicon* 913
- Psophocarpus* 6803, 8631
- Vicia*, broad bean 2668, 3731
- Vitis* 8448
- Zea*, sweet corn 1140
- Prunus** (see Stone fruits)
- Prunus, almond**
  - breeding, Israel 4809
  - centres of origin or diversity 5509
  - chemicals, as plant constituents
    - carbohydrates 10017
    - oil, fatty 6562, 10017
    - protein 10017
  - cold resistance 3620
  - embryo culture 3620
  - $\gamma$  rays 2465, 2559, 2814
  - genetic resources 10849, 10943
  - Gloeosporium* 5510
  - height 2465
  - hybridization, interspecific 788, 3620, 10873
  - leaf, anatomy 788
  - mutation, induced 2465, 2559
  - review 2814
  - pollen 10944
  - pollination 4577
  - Polystigma* 6562
  - stem, anatomy 788
  - sterility and fertility 3509, 10873
  - Stigmina* 6562
  - stomata 7622
  - taxonomy 8456
  - temperature, effect of 7622, 10944
  - ultraviolet rays 10873
  - varieties
    - Greece 6476
    - Italy 6477
    - Turkmen SSR 7621
    - Ukrainian SSR 7621
  - variety trials
    - Moldavian SSR 7620
    - Romania 6562
  - water balance 7622

**Prunus, almond  $\times$  Prunus, peach**

- bud failure 8455
- chilling requirement 8455
- hybridization, interspecific 8455

**Prunus, apricot**

- Bacillus* 6500
- breeding, Kazakh SSR 8384
- chemicals, as plant constituents
  - carotene 7535
  - flavonol glycosides 6497
  - kaempferol 3-galactoside 6497
  - kaempferol 3-glucoside 6497
- cold resistance 2486, 7561, 10878
- dormancy 10878
- flower, anatomy 9116
- flowering 3547
- fruit 701
- heat and drought resistance, technique 9102
- hybridization, interspecific 10873
- luminescence 9102
- pollination 3544
- polyploidy 10874
- Pseudomonas* 6500
- seasonal growth 700, 3547
- seed, weight 9115
- seedlings 9115
- shedding 701, 9116
- sterility and fertility 700, 10873
- taxonomy 9116
- ultraviolet rays 10873
- varieties
  - Canada 3545, 3546
  - Greece 6476
  - Italy 4525, 6477
  - Japan 3857
  - Romania 6499
  - Ukrainian SSR 10876
- variety trials
  - Moldavian SSR 10875
  - Ukrainian SSR 2486
- viruses 8385

**Prunus, apricot  $\times$  Prunus, cherry**

- cold resistance 2487
- habit 2487
- hybridization, interspecific 699, 2487
- pollen 2487
- seasonal growth 2487
- sterility and fertility 2487

**Prunus, apricot  $\times$  Prunus, cherry contd.**

- tissue culture 699
- X rays 2487
- Prunus, apricot  $\times$  Prunus, plum**
  - fruit 10877
  - hybridization, interspecific 10877
- Prunus, cherry**
  - altitude 9946
  - aphids 677
  - Blumeriella* 3557
  - breeding 3551
    - German Federal Republic 1428
    - Kazakh SSR 8384
    - Yugoslavia 2491
  - chemicals, as plant constituents
    - acids 8405, 9122
    - anthocyanins 5441
    - carotene 7535
    - chlorophyll 2494, 6507
    - flavonol glycosides 6497
    - IAA 2494
    - kaempferol 3-galactoside 6497
    - kaempferol 3-glucoside 6497
    - sugar 6505
  - chemicals, general effects, daminozide 5441
  - Coccomyces* 2493, 2496
  - cold resistance 709, 1454, 2495, 5442, 5443, 8408, 9124, 9948, 9949
  - Cytospora* 8408
  - density of stand 8407
  - diploidy 5412
  - Eurytoma* 6498
  - flower 1428
  - flowering 3554
  - foliage area, technique 6506
  - fruit, colour 5441, 8405
  - fruit cracking 1452, 8405
  - fruit, size 2496, 8405, 8407
  - fruit, texture 5441, 8405
  - $\gamma$  rays 2493, 2494, 2495, 4528, 9120
  - genetic resources 9412
  - geography 8407
  - germplasm banks, USSR 6475
  - glass and plastic, cultivation under 1452
  - growth period 9946
  - habit 2493
  - harvesting 5441
  - harvesting, mechanical 1453, 9123, 9412
  - heat and drought resistance, technique 9102
  - height 1425, 2494, 2495, 2496
  - history and evolution 3556
  - hybridization, interspecific 1427, 3556, 4528, 5412, 6507, 9948, 10873
  - increment 9946
  - leaf, anatomy 2496, 6507
  - leaf, shape 2495
  - leaf, size 2495
  - luminescence 9102
  - mechanical injury 2493
  - mixoploidy 4528
  - mutation 2492, 6507, 8404
  - mutation, induced 1425, 2493, 2494, 2495, 2496, 3837, 9101
  - height 9120
  - seasonal growth 9120
  - pollination 3544, 5440
  - polyploidy 10874
  - precocity of bearing 2496
  - Pseudomonas* 1424, 1425, 1455, 3837, 10880
  - physiological races, UK 6508
  - quality 9122
  - quality, for canning 8406
  - quality, for conserving 7564
  - quality, for freezing 7564, 8406, 9947
  - quality, for storage 2493
  - quality, of juice 5438, 7564
  - rooting capacity 3553
  - rootstock 1426, 1427, 3551
  - Sclerotinia* 1428
  - seasonal growth 2493, 2495, 3554, 8407, 9121
  - spur variants 1428, 9101
  - stem pitting 4529
  - Stereum* 10854
  - sterility and fertility 3555, 4528, 10873
  - sterility, self 1428, 5438, 5440
  - ultraviolet rays 10873
  - varieties
    - German Federal Republic 8401
    - Greece 6476

**Prunus, cherry contd.**

- varieties contd.
  - Italy 6477, 7564, 8402, 8403
  - UK 1424, 3837
  - USA 3552
  - USSR 9119
- variety trials
  - Belorussian SSR 5437
  - Denmark 5438
  - Italy 7564
  - Norway 9118
  - Romania 6505
  - USSR 709, 4527, 9117
  - Yugoslavia 9121
- viruses 8409
- X rays 1425, 2493, 2496, 3837, 4528
- Prunus, cherry  $\times$  Prunus, apricot**, hybridization, interspecific 699, 2487
- Prunus, cherry  $\times$  Prunus, plum**, hybridization, interspecific 698
- Prunus, nectarine**
  - breeding, Italy 1433, 3565, 5450
  - cold resistance 3517
  - fruit 9101
  - genetics, fruit 9101
  - seasonal growth 1433
  - Sphaerotheca* 3563
  - varieties
    - Italy 6477, 6516
    - USA 4534
  - Xanthomonas* 9936
- Prunus, peach**
  - breeding, Italy 1433, 3558, 6509
  - chemicals, as plant constituents
    - acids 2499, 4531
    - anthocyanins 3562
    - carotene 7535
    - carotenoids 3562
    - chlorophyll 3562
    - o-diphenol oxidase 712
    - flavonol glycosides 6497
    - kaempferol 3-galactoside 6497
    - kaempferol 3-glucoside 6497
    - malic acid 1434
    - phenols 3562
    - protein, technique 5445
    - sugar 3560
  - chilling requirement 6510
  - cold resistance 1456, 3517, 3562, 4532, 5447
  - Cytospora* 7566
  - development and growth 4531, 5446
  - flowering 2498
  - fruit 9101
  - fruit, colour 6515, 7565
  - fruit, size 3508, 3560, 4531
  - fruit, texture 2499, 7565
  - fruit, weight 4531
  - Fusicoccum* 3508
  - genetics
    - fruit 9101
    - malic acid 1434
  - germination 3559
  - germplasm banks, USSR 6475
  - growth period 8412, 9101
  - heat and drought resistance, technique 9102
  - heat, effect of 712
  - height 3508, 9125
  - heritability
    - growth period 8412
    - leaf colour 8412
  - Hyaloperis* 3564
  - hybridization, interspecific 3564, 5439, 10873
  - leaf, colour 8412
  - luminescence 9102
  - Meloidogyne* 4533
  - mutation, induced 9101
  - Myzus* 3564, 5449
  - pathology 714
  - pollen 1457
  - pollen, technique 7534
  - pollination 3544
  - polyploidy 10874
  - quality, for canning 3561, 6515
  - quality, for fresh consumption 3561, 4531, 7565, 9125
  - quality, of distilled spirit 3560
  - ripening 710
  - rooting capacity 713
  - rootstock 1435, 4533, 6514
  - seasonal growth 710, 1433, 6514, 8413



**Prunus, peach contd.**

- Sphaerotheca* 3508, 3563, 10882
  - sterility and fertility 1457, 10873
  - temperature, effect of 8413
  - ultraviolet rays 10873
  - varieties 714
    - Armenian SSR 710
    - Bulgaria 6512
    - Greece 6476
    - Italy 6477, 8411, 10881
    - Japan 3857, 5444, 6513
    - Moldavian SSR 8410
    - S. Korea 2497
    - USA 711, 4530, 6510, 6511, 9951
  - varieties, classification 5445
  - variety trials
    - India 9125
    - Romania 1456
    - Ukrainian SSR 9950
  - waterlogging 9952
  - Xanthomonas* 5448, 9936, 9951
  - Xiphenema*, technique 2500
  - Xiphenema*, technique 2500
  - xylem 4532
- Prunus, peach** × **Prunus, almond**,  
hybridization, interspecific 8455
- Prunus, peach** × **Prunus, plum**  
hybridization, interspecific 10874
- polyploidy 10874
- Prunus, plum**
- aphids 677
  - bacteria 8400
  - breeding, Romania 6474
  - chemicals, as plant constituents
    - acids 707, 8398, 8399
    - ascorbic acid 8399
    - ash 707, 8399
    - carotene 7535
    - cyanidin 3-glucoside 8398
    - cyanidin 3-rutinoside 8398
    - flavonol glycosides 6497
    - kaempferol 3-galactoside 6497
    - kaempferol 3-glucoside 6497
    - lignin 6504
    - nitrate 2490
    - paeonidin 8398
    - phenylalanine 6504
    - sodium 2490
    - sucrose 8399
    - sugar 707, 8399
    - sugars, reducing 707
    - tyrosine 6504
  - chemicals, fertility and sex, effects
    - dimethyl sulphate 9938
    - N*-nitroso-*N*-methylurea 9938
  - chilling requirement 669
  - Chondrostereum* 669
  - chromosomes, number 10228
  - cold resistance 3517
  - development and growth 3549, 9940
  - dormancy 669
  - embryo sac 7562, 8397
  - Erwinia* 7563
  - Eurytoma* 6498
  - flower 5436
  - fruit 5436
  - fruit, colour 8398
  - fruit cracking 9939
  - fruit, size 9922
  - fruit, weight 707
  - fruiting, biennial or irregular 9939
  - genetics, dormancy 669
  - germplasm banks, USSR 6475
  - growth period 9922, 9940
  - habit 708, 5436
  - heat and drought resistance 6503
  - heritability 10879
  - hybridization, interspecific 698, 2490, 6503, 9938, 10874
  - hybridization, wide 706, 7562
  - pollen 8397, 9938, 9941, 9943
  - pollination 9943
  - polyembryony and twinning 5782
  - polyploidy 706, 7562, 10874
  - Polystigma* 6504
  - Pseudomonas* 669, 7563
  - quality 9939
  - quality, for drying 9944
  - quality, for fresh consumption 3550
  - rooting capacity 2489
  - rootstock 9942
  - salinity 2490
  - seasonal growth 3550, 5436

**Prunus, plum contd.**

- Stereum* 10854
  - sterility and fertility 706, 5436, 7562
  - sterility, male 4526
  - sterility, self 4526, 8397
  - Tranzschelia* 669
  - varieties
    - German Federal Republic 9939
    - Greece 6476
    - Italy 6477, 6502
    - South Africa 2488
    - UK 9942
    - USA 3548
  - varieties, classification 5436
  - variety trials
    - Kazakh SSR 703, 704
    - Kirgiz SSR 705, 1450
    - Ukrainian SSR 1449
    - USA 702, 6501
  - viruses 8385
  - water balance 6503
  - Xanthomonas* 1451
- Prunus, plum** × **Prunus, apricot**,  
hybridization, interspecific 10877
- Prunus, plum** × **Prunus, cherry**,  
hybridization, interspecific 698
- Prunus, plum** × **Prunus, peach**,  
hybridization, interspecific 10874
- Pseudocercospora**, *Psophocarpus* 6810
- Pseudocercospora**
- Aegilops* 10370
    - physiological races 5817, 5818
  - Aegilops* × *Triticum* 10370
  - Agropyron*, physiological races 4827, 5817, 5818
  - Avena*, physiological races 4827
  - Hordeum* 2861, 4828
    - physiological races 4827, 5818
  - Secale*, physiological races 4827, 5817, 5818
  - Triticum* 2861, 4828, 4895, 6915, 6977, 7885, 10370
    - physiological races 4827, 5817, 5818
- Pseudomonas**
- Avena*, physiological races 3887
  - Cucumis*, cucumber 2630, 7693, 9254
  - Glycine* 9319
  - Helianthus*, sunflower 9072
  - Lactuca* 8521
  - Lycopersicon* 1643, 4655, 6662, 6663, 9278, 11058
    - physiological races 8555, 8556
  - Malus* 6479
  - Morus* 10892
  - mutation 2383
  - Nicotiana* 617, 618, 4443, 5339, 6415, 6416, 6417, 7433, 7435, 7458, 7464, 7465, 9851, 10774, 10775, 10776
    - physiological races 2383
  - Japan 7466
  - Olea* 2433, 2434
  - Oryza* 6140
  - Panicum* 1176, 9626
  - Phaseolus* 948, 4689, 4691, 5661, 6701, 6745, 10110, 10111
    - physiological races 4688, 6724, 6725
    - physiological races, technique 3738
  - Prunus*, apricot 6500
  - Prunus*, cherry 1424, 1425, 1455, 3837, 10880
    - physiological races, UK 6508
  - Prunus*, plum 669, 7563
  - Psophocarpus* 4766
  - Pyrus* 6479
  - Saccharum*, physiological races, Mexico 5321
  - Solanum* 6672
  - Solanum*, egg plant 4661, 6672, 11068
  - Solanum*, potato 1640, 3320, 6324, 7337, 7338
    - physiological races 7336, 9791, 10694, 10695
  - Peru 10697
  - Vicia*, vetch 9757
  - Vigna*, minor species 6744, 6745
  - Zea*, maize 2006, 2007, 3866
    - physiological races 3887
- Pseudomonas, technique**
- Cucumis*, cucumber 9254
  - Nicotiana* 2378
  - Panicum* 4108
  - Phaseolus* 6723
  - Solanum*, potato 7336

**Pseudoperonospora**

- Cucumis*, cucumber 827, 828, 10070
  - Cucumis*, melon 6636, 8525
- Pseudopeziza**
- Medicago* 1274, 7289
  - Ribes*, black currant 4551, 5472
  - Trifolium*, white clover 4296
- Pseudotsuga**
- altitude 818, 6595
  - chemicals, as nutrients, nitrogen 819
  - chemicals, as plant constituents
    - ABA 4597
    - enzymes 9207
    - nitrogen 819
  - Choristoneura* 6596
  - chromosomes, morphology 3649
  - chromosomes, number 3649
  - clines 6595
  - cold resistance 818, 5543, 8491
  - development and growth 6595
  - flower, number 7654
  - genetic variance 7634, 7654
  - genotype × environmental interaction 819, 7653
  - geographical races 6595, 7654, 9207
  - germination 8491
  - heat and drought resistance 4597
  - heritability 7634, 7654
  - heterozygosis 9207
  - increment 819
  - multiple alleles, enzymes 9207
  - plant introduction
    - from North America 7653
    - to German Federal Republic 7653
  - provenance trials
    - Canada 7652
    - German Federal Republic 7653
    - Turkey 8491
    - USA 7652
  - quality, of timber 7652
  - seasonal growth 6595, 7654, 7655, 8491
  - seed, weight 8491
  - stability 818
  - stomata 4597
  - tissue culture 3649
  - water balance 4597, 8491
- Psidium**
- Cephaeleuros* 5459
  - chemicals, as plant constituents
    - acids 4541
    - ascorbic acid 4541, 5458
  - fruit, size 5458
  - quality, for storage 4541
  - ripening 4541
  - variety trials
    - Brazil 735
    - Ivory Coast 9975
- Psidium** × **Punica**, hybridization,  
intergeneric 2464
- Psila**, *Daucus* 5795, 6604, 9413, 10970
- Psophocarpus**
- breeding, symposium 6795, 8624, 8635
  - centres of origin or diversity 6821, 8625
  - chemicals, as plant constituents
    - ash 6801
    - calcium 6801
    - fatty acids 7799
    - nitrogen 6801, 6806
    - oil, fatty 6801, 6820
    - phosphorus 6801
    - protein 6801, 6820, 8632, 8638, 8640
    - protein, technique 6820
  - chemicals, mutagenic effects, ethyl methanesulphonate 6796
  - chromosomes, morphology 1609
  - chromosomes, number 6821, 8634
  - climate 6797
  - cold resistance 8638
  - combining ability 8626, 8640
  - cuttings 6797
  - flower 6797
  - flowering 6798, 6799, 6804, 6809
  - foliage area 11190
  - fruit 6799, 6804
  - fruit, colour 8644
  - fruit, number 8644
  - fruit, size 5714, 6808, 8632, 8633, 8643, 8644
  - fruit, weight 8632
  - γ rays 6796
  - genetic resources 8627, 8629, 8630, 8637
  - genetic variance 6808, 8626, 8631, 8640
  - genetics 8626



**Psophocarpus contd.**

- genotype × environmental interaction 11190
- germination 8646
- germplasm banks
  - Colombia 8649
  - India 8638
  - Malaysia 8641
  - Papua New Guinea 8679
  - Philippines 8630, 8679
  - Thailand 8679
- growth period 5714, 6801, 6808, 6809, 8628, 8632, 8639, 8642, 8643, 11190
- gynecium 8651
- habit 6800, 6801
- heat and drought resistance 6802
- height 8633
- heritability 8631
  - foliage area 11190
  - leaf, size 11190
- heterosis 8626, 8631, 8640
- history and evolution 1609, 6821
- land races 8626
- leaf, shape 5714
- leaf, size 8633, 11190
- linkage 8626
- meiosis 1609
- Meloidogyne* 4767
- mutation, induced 6796
- nitrogen fixation 6806
- Oidium* 6810
- photoperiodism 5714, 6797, 6799, 8628
- pollination 6798, 6799, 8626, 8651
- polymorphism 8626
- pruning 6803, 8631
- Pseudocercospora* 6810
- Pseudomonas* 4766
- quality, for cooking 8645
- Rhizobium* 6806
  - physiological races 6807
- seed, colour 8632, 8636
- seed, number 8633, 8643, 8644
- seed production 6802
- seed, texture 8636
- seed, weight 8632, 8636
- shedding 6804
- sowing and planting date 8639
- sterility and fertility 6797, 6798, 8640
- Synchytrium* 5714, 6810, 8640
- temperature, effect of 6797
- tissue culture 4762
- translocation, physiological 6805
- tuber 8631
- variation 4764, 8627, 8628, 8629, 8630
- variety trials
  - Bangladesh 8648
  - Colombia 8649
  - El Salvador 8646
  - Ghana 6802
  - Papua New Guinea 6808
  - Puerto Rico 8645
  - S. Korea 8647
  - USA 6806
- yield components 6797, 6800, 6808, 8626, 8633, 8640

**Psylla**

- Malus* 5795
- Pyrus* 3511

**Puccinia**

- Aegilops* 3877
- Aegilops* × *Triticum* 10308
- Agropyron* 3877
- Agropyron* × *Triticum* 4850, 10307
- physiological races 203
- Agrostis* 2185
- Arachis* 2795, 3480, 4488, 4489, 8375
- physiological races, India 9081
- Avena* 1906, 2828, 3006, 4926, 10384, 10407, 10408, 10409
- physiological races 4925, 5971, 7010
- Canada 3998, 5972, 5973, 6884, 7991
- Georgian SSR 10410
- Israel 5161
- USA 3999, 7991
- USSR 10410
- cereals, review 7874
- chemicals, mutagenic effects, ethyl methanesulphonate 7959
- Dactylis* 6209
- Festuca* 2185
  - physiological races 4266
- Festuca* × *Lolium* 3222

**Puccinia contd.**

- genetics, *Triticum* 4904, 4910
  - grasses, physiological races, Israel 5161
  - Haynaldia* 3877
  - heat, effect of 2971
  - Helianthus*, sunflower 643, 644, 2422, 4471, 7496
  - Hordeum* 1170, 1171, 1688, 2852, 3111, 3112, 3878, 5053, 5058, 5059, 6078, 6079, 6108, 7099, 8706, 10521, 10524, 10525, 10555
  - physiological races 3129, 6109
  - Canada 5821
  - German Democratic Republic 8872
  - USSR 5060
  - Lolium* 425, 5187, 7254
  - Mentha* 11196
  - mutation, induced 7959
  - Pennisetum* 2793, 10559
  - Poa* 416, 2185, 5163, 8230
  - Saccharum* 570, 3387, 5317, 9021
  - Secale*, physiological races, Canada 5821
  - Secale* × *Triticum*, triticales 2851, 5949, 6991
  - physiological races
    - Canada 5821
    - India 7004
  - sexual reproduction 4904
  - Sorghum* 5073, 7152, 7153, 7158, 7159, 7173, 8132, 10568, 10569
  - temperature, effect of 10390
  - Tripsacum* × *Zea*, maize 4019
  - Triticum* 111, 144, 161, 200, 201, 202, 204, 206, 1688, 1777, 1830, 1836, 1837, 1847, 1851, 1852, 1855, 1856, 1857, 1869, 1870, 2850, 2879, 2881, 2883, 2888, 2962, 2972, 2974, 2975, 2976, 2981, 2982, 3911, 3959, 3962, 3970, 3971, 3972, 3974, 3976, 3977, 3979, 4826, 4870, 4888, 4889, 4890, 4899, 4901, 4902, 4903, 4904, 4906, 4907, 4908, 4909, 4913, 4914, 4916, 5834, 5835, 5838, 5839, 5842, 5843, 5865, 5889, 5916, 5921, 5928, 5932, 5936, 6907, 6910, 6911, 6912, 6915, 6973, 6980, 6982, 6983, 7082, 7879, 7881, 7882, 7883, 7884, 7902, 7909, 7963, 7964, 8706, 8710, 8723, 8766, 8768, 8770, 9374, 9440, 9441, 9487, 9488, 9489, 9490, 10257, 10266, 10271, 10276, 10278, 10287, 10382, 10383, 10385, 10388
  - book 5929
  - physiological races 205, 1695, 1698, 1743, 1831, 1832, 1868, 1871, 2964, 2971, 2977, 2979, 2980, 3973, 4894, 4900, 4905, 4912, 4915, 5929, 5930, 5931, 5934, 6896, 6913, 7885, 7959, 7960, 7961, 7962, 7966, 9427, 10389
  - Bulgaria 1861
  - Canada 1833, 1858, 4838, 5821, 5933, 6884, 9491
  - Chile 7910
  - Czechoslovakia 4911
  - India 1829, 1834, 1853, 1854, 1863, 1864, 1867, 3968, 3969, 3975, 3978, 6981, 7965, 8765, 8769, 9485, 9486, 10381
  - Italy 1860, 1865, 1866, 3877
  - Portugal 4910
  - Romania 1862, 8767
  - Ukrainian SSR 1859, 10391
  - USA 1833, 2973, 10387
  - USSR 2978, 10386, 10390
  - physiological races, technique 9491
  - Zea*, maize 3083, 6059, 6065, 10422
- Puccinia, technique**
- Arachis* 3480, 9082
  - Festuca* 7265
  - Saccharum* 10758
  - Triticum* 5935
  - Zea*, maize 1139
- Pulses**
- breeding 1022, 1025
  - Egypt 4664
  - symposium 4663
  - USSR 43, 3847, 6859
  - chemicals, as nutrients, nitrogen 1686, 4678
  - chemicals, as plant constituents
  - protein 1025
  - review 1021

**Pulses contd.**

- chemicals, general effects, aluminium 10235
  - genetic resources 4669, 4676, 6853, 6856
  - genetics, *Rhizobium*, review 6241
  - germplasm banks 4669, 8569
  - Belgium 7844
  - history and evolution 1021
  - review 10089
  - mutation, induced 5780
  - nitrogen fixation 1686, 4678
  - review 6241
  - pathology 3869
  - symposium 11074
  - physiology 8570
  - Rhizobium* 1686, 7732, 8688
  - physiological races 4678
  - seed production 6874
  - seed, size 1565
  - soil pH 10235
  - taxonomy, review 10089
  - tissue culture 8688
  - toxic soils 10235
  - viruses, technique 934
- Pumpkin (see Cucurbita)**
- Punica**
- breeding
    - India 6538
    - USSR 1482
  - chemicals, as plant constituents, acids 2537
  - cold resistance 7605
  - flower 2537
  - flower, number 1485
  - flowering 7601
  - fruit, number 1485
  - fruit, size 2537
  - fruiting, biennial or irregular 7601
  - γ rays 2465, 2814
  - genetic resources 10849
  - germplasm banks
    - Azerbaijan SSR 10849
    - Turkmen SSR 1482
  - gynecium 1485
  - height 2465
  - mutation, induced 2465
  - review 2814
  - quality, for fresh consumption 9999
  - seasonal growth 7601
  - seed, size 2537
  - seed, texture 9999
  - seedlessness 2467
  - spines 2537
  - stem, number 1485
  - sterility and fertility 2537
  - varieties, Azerbaijan SSR 2465
- Punica** × **Psidium**, hybridization, intergeneric 2464
- Pure lines (see Inbreeding)**
- Pyrenochaeta**, *Cucumis*, melon 2589
- Pyrenochaeta**, technique, *Allium*, onion 8512
- Pyrenopeziza**
- Brassica* 9239
  - Brassica*, rape 1403, 6437
- Pyrenopeziza**, technique
- Brassica*, kale 1536
  - Brassica*, rape 1536
  - Brassica*, swede 1536
- Pyrenophora**
- cereals, physiological races 8705
  - genetics, cereals 8705
  - Hordeum* 1168, 3111, 4103, 5052, 6079, 9600, 10519, 10550
  - physiological races
    - Poland 1168
    - USSR 7111
  - Secale* × *Triticum*, triticales 2851
  - Triticum*
    - physiological races
      - Canada 5923
      - USA 5923
- Pyrethrum (see Chrysanthemum)**
- Pyrularia**
- genetics, *Oryza* 6183
  - Oryza* 350, 387, 1201, 1230, 1234, 1235, 1632, 2104, 2107, 2169, 3167, 3168, 3170, 3172, 3196, 3831, 4223, 4226, 4793, 6153, 6186, 6187, 6189, 6190, 7190, 7221, 7223, 8154, 8157, 8158, 8200, 8203, 8209, 8674, 8677, 8886, 8894, 9367, 9661, 9703



**Pyricularia contd.**

- Oryza* contd.  
 physiological races 1695, 1696, 3197, 4225, 6181, 8210, 8921, 9705, 10618  
 Argentina 8204  
 China 386  
 India 1204, 6185  
 Japan 1236, 6183, 8207, 9708  
 S. Korea 385  
 Taiwan 5764, 5765  
 review 2170, 6183, 6184, 6185, 6188  
 symposium 6182  
*Pennisetum* 9635  
 variation, review 2170  
**Pyricularia, technique, *Oryza*** 4224, 10616, 10617  
***Pyrilla, Sorghum*** 4157  
***Pyrus* (see also *Malus*)**  
*Adoxophyes* 3541  
 breeding 5777  
 Japan 690, 7556  
 Romania 1429, 6474  
 Sweden 5411  
 USA 4521  
 USSR 7531, 9110  
 chemicals, as plant constituents  
 acids 4505, 6494  
 pectin 6494  
 peroxidase 6493  
 protein 10870  
 sugar 4505, 6494  
 chemicals, general effects  
 GA 3539  
*N*-nitroso-*N*-methylurea 9110  
 cold resistance 696, 1448, 3517, 3539, 4522, 4523, 6491  
 combining ability 694, 696  
 fruit, size 9935  
 fruit, weight 9935  
*Cydia* 4505  
 diallel analysis 3507  
*Erwinia* 1438, 3498, 3510, 4522  
 review 678  
*Fabraea* 7555  
 flowering 3507  
 fruit 4521  
 fruit, colour 695  
 fruit, shape 694, 3511  
 fruit, size 693, 3511, 6491, 9922, 9935  
 fruit, texture 8395  
 fruit, weight 694, 9935  
 genetic resources 7536, 7537  
 genetics  
 fruit, colour 695  
 leaf, shape 695  
 quality, for fresh consumption 695  
 germplasm banks  
 Sweden 4502  
 USSR 6475  
 grafting 1447  
 growth period 694, 9922  
 heat and drought resistance, technique 9102  
 height 6491  
 heritability  
 fruit, texture 8395  
 quality, for fresh consumption 8395  
 hybridization 1447  
 hybridization, interspecific 693, 695, 696, 3498, 4522, 4523, 5433, 9935  
 inbreeding 8395  
 leaf burn 10871  
 leaf, shape 695, 4524, 5434  
 luminescence 9102  
 mycoplasmas 8385  
*Mycosphaerella* 6491  
 parthenocarpy 1448  
*Podosphaera* 6491  
 pollen, technique 7534  
 pollination 3498, 10870  
 precocity of bearing 3507, 3511, 3536, 3537, 6491, 6492  
*Pseudomonas* 6479  
*Psylla* 3511  
 quality, for fresh consumption 693, 695, 3538, 4523, 4524, 5434, 8395  
 quality, for storage 6478, 6494, 7559  
 rootstock 5419  
 russetting 3511  
 seasonal growth 693, 3507, 7558, 10853  
*Stereum* 10854  
 sterility and fertility 1447, 3498, 6492, 10870

***Pyrus* contd.**

- stomata 10871  
 thinning 5435  
 varieties  
 China 4522  
 Greece 6476  
 Italy 3535, 6477  
 Japan 692, 3857, 6492  
 South Africa 10856  
 Ukrainian SSR 9934, 10869  
 USA 5433, 10868  
 USSR 7555, 7557  
 Yugoslavia 9112  
 varieties, classification 6493  
 variety trials  
 Azerbaijan SSR 691  
 Belorussian SSR 3534, 10867  
 Romania 7558  
 USSR 3533, 7532  
 Yugoslavia 9111  
*Venturia* 3511, 3540, 6491, 8396  
*Venturia*, technique 7560  
 water balance 10871  
***Pyrus* × *Malus*, hybridization, intergeneric** 681, 7546  
***Pythium***  
*Arachis* 7518  
*Cicer* 11188  
*Daucus* 832  
*Lens* 7796  
*Medicago* 8955  
*Nicotiana* 619  
*Phaseolus* 4694, 6730, 8586  
*Pisum* 5706, 10179  
*Sorghum* 4168  
*Triticum* 3965  
***Pythium*, technique**  
*Phaseolus* 11079  
*Pisum* 11077  
**Quality**  
*Acca* 10215  
*Allium*, onion 6609  
*Brassica*, cabbage 10055  
*Brassica*, swede 1300  
*Cichorium*, chicory 10976  
*Citrus* 9964  
*Citrus*, grapefruit 9964  
*Citrus*, lemon 9964  
*Citrus*, mandarin 9964  
*Citrus*, orange 9964  
*Citrus*, pomelo 9964  
 crop plants 6872  
*Cydonia* 6496  
*Fragaria* 9994  
 grasses, symposium 7236  
*Ipomoea* 10701  
 leguminous forage crops, symposium 7236  
*Medicago* 7279  
*Oryza* 6144, 6148, 6155  
 review 6161, 8181  
 symposium 6157, 7194  
*Prunus*, cherry 9122  
*Prunus*, plum 9939  
*Solanum*, potato 6309  
*Triticum* 4873  
 vegetable crops, symposium 825  
*Vitis* 8447  
*Zea*, sweet corn 3085  
**Quality, for canning**  
*Ananas* 2533, 7598  
*Daucus* 7657  
*Lycopersicon* 5626, 6660, 9274  
*Prunus*, cherry 8406  
*Prunus*, peach 3561, 6515  
**Quality, for canning, technique, *Oryza*** 8184  
**Quality, for conserving**  
*Fragaria* 6535  
*Prunus*, cherry 7564  
**Quality, for cooking**  
*Cajanus* 2760  
*Daucus* 5549, 9220  
*Dioscorea* 1635, 9033  
*Ipomoea* 2282, 4362  
*Lablab* 988, 2761  
*Oryza* 371, 376, 2151, 2154, 4200, 4212, 5115, 6158, 6159, 6165, 7195, 7196, 7197, 7198, 7199, 7200, 7201, 7202, 7203, 7204, 8154, 8183, 8186, 8187, 8190, 8191, 8674, 9693, 9694, 9695  
 review 6163  
*Petroselinum* 8655

**Quality, for cooking contd.**

- Phaseolus* 7745  
*Pisum* 10173  
*Psophocarpus* 8645  
*Solanum*, potato 1313, 6305, 6318, 6328, 7313, 8278, 8286, 8975  
*Sorghum* 2095, 2794  
*Triticum* 2943  
*Vicia*, broad bean 8572, 11086  
*Vigna*, cowpea 5665  
*Zea*, maize 10482  
**Quality, for cooking, technique**  
*Oryza* 8185, 8186, 8187, 8188, 8189  
*Solanum*, potato 5785  
*Triticum* 3947, 10344  
**Quality, for drying**  
*Allium*, onion 9235  
*Capsicum* 654, 655  
*Ficus* 729  
*Pisum* 10171, 10172  
*Prunus*, plum 9944  
**Quality, for food processing**  
*Allium*, onion 8511  
*Arachis* 7514  
*Brassica*, cabbage 10055  
*Capsicum* 655, 656, 2453  
*Fragaria* 10922  
*Lycopersicon* 5625, 5626, 8550, 10075, 11054, 11055  
*Malus* 667  
*Oryza* 1209, 7204  
*Phaseolus* 7746  
*Solanum*, potato 3318, 6317, 6318, 6320, 6328, 7313, 8278, 8287, 9784, 9785, 10691, 10982  
*Triticum* 1743, 2946, 3941, 5893, 7880, 7946, 9449, 9476, 10346, 10351  
*Zea*, maize 265  
**Quality, for food processing, technique**  
*Oryza* 8184  
*Solanum*, potato 5785  
**Quality, for freezing**  
*Fragaria* 759, 9994  
*Prunus*, cherry 7564, 8406, 9947  
*Rubus*, blackberry 742  
*Rubus*, raspberry 7582  
*Vicia*, broad bean 8572  
**Quality, for fresh consumption**  
*Achras* 7604  
*Capsicum* 5401, 7523, 8377  
*Citrullus* 6638  
*Citrus* 2504, 5455  
*Citrus*, grapefruit 9961  
*Citrus*, grapefruit × *Citrus*, mandarin 5455  
*Citrus*, lemon 2502, 9961  
*Citrus*, lemon × *Poncirus* 9965  
*Citrus*, lime × *Fortunella* 9965  
*Citrus*, mandarin 724, 2502, 9961  
*Citrus*, mandarin × *Poncirus* 9965  
*Citrus*, orange 2502, 5455, 9961  
*Citrus*, orange × *Fortunella* × *Poncirus* 9961  
*Citrus*, orange × *Poncirus* 2504, 9965, 9966  
*Citrus*, pomelo 5455  
*Citrus* × *Poncirus* 2504  
*Cucumis*, cucumber 7696, 10977  
*Cucumis*, melon 5604, 8525  
*Daucus* 837, 4602, 8504  
*Fortunella* × *Poncirus* 2504  
*Fragaria* 5475  
*Lycopersicon* 1517, 4650, 6659, 7698  
*Malus* 2474, 2478, 3505, 9103, 10858  
*Persea* 5466  
*Petroselinum* 8655  
*Prunus*, peach 3561, 4531, 7565, 9125  
*Prunus*, plum 3550  
*Punica* 9999  
*Pyrus* 693, 695, 3538, 4523, 4524, 5434, 8395  
*Raphanus* 844  
*Rubus* 6529  
*Rubus*, blackberry × *Rubus*, raspberry 6529  
*Vaccinium* 4552  
*Vitis* 5495  
*Zizyphus* 9149  
**Quality, for fresh consumption, technique**  
*Lycopersicon* 4651  
*Malus* 4515



**Quality, for industrial processing**

*Beta*, fodder beet × *Beta*, sugar beet  
10760

*Beta*, sugar beet 10769

*Brassica*, rape 2404

*Gossypium* 2304

*Hevea* 10848

*Parthenium* 8383

**Quality, for malting and brewing, *Hordeum***

1162, 2052, 3086, 3096, 3115, 3120,  
5044, 5801, 6098, 6099, 7832, 8671,  
8860, 9425, 9608, 9609, 9610, 9612, 9615

**Quality, for malting and brewing, technique, *Hordeum***

5785, 5786

**Quality, for milling and baking**

*Aegilops* 7943

*Elymus* × *Triticum* 115

*Fagopyrum* 408

*Hordeum* 1166, 9609

*Lathyrus* 3299

*Oryza* 2149, 2152, 6159, 6161, 7195,  
7197, 7198, 7199, 7202, 7204, 9696

*Panicum* 323, 5063, 9621

*Secale* 4935, 7019, 8009, 8010, 9516

*Secale* × *Triticum*, triticaire 212, 1893,  
2851, 6991, 7002, 7003, 7985

*Sorghum* 337, 7142

*Triticum* 90, 176, 181, 1055, 1092, 1093,  
1095, 1734, 1741, 1777, 1810, 1812,  
1813, 1814, 1817, 1818, 1819, 2874,  
2876, 2879, 2929, 2943, 2947, 2950,  
2953, 2954, 3944, 3945, 3946, 3948,  
3949, 4869, 4872, 4875, 4877, 4878,  
5801, 5826, 5827, 5830, 5859, 5895,  
5896, 5897, 5899, 5901, 5903, 6913,  
6955, 6960, 7821, 7884, 7904, 7941,  
7943, 7944, 7967, 7968, 8723, 8735,  
8740, 8749, 8751, 8753, 8754, 9389,  
9425, 9434, 9441, 9448, 9474, 9475,  
9477, 9478, 10346, 10348,

10349, 10350, 10353

*Zea*, maize 9576

**Quality, for milling and baking, technique**

*Oryza* 372

*Triticum* 2944, 2945, 2955, 4882, 4883,  
5785, 5900, 6962, 7945, 8752, 9472,  
10342, 10343, 10347, 10352

**Quality, for nutrition**

*Agropyron* 2202

*Avena* 1717, 7984

*Beta*, beetroot 9219

*Brassica*, kale × *Raphanus* 3662

*Brassica*, rape 861, 5372, 7485

*Brassica*, swede 6281

*Brassica*, turnip 6281

*Bromus* 6219, 8943

cereals 1018, 1716

crop plants 1024

*Cynodon* 6201

*Dactylis* 7230, 9723

*Daucus* 6601

*Eleusine* 5720

*Fagopyrum* 8932

*Festuca* × *Lolium* 3222, 5180, 8238

grasses 7231, 8227

*Hordeum* 1717, 6097, 7108, 7984, 8702

*Lolium* 7230, 7251

*Manihot* 3408

*Medicago* 1259, 1262, 1263, 1272, 2224,  
6248, 7285

millets, book 5720

*Musa* 1480

*Oryza* 376, 6156

*Panicum* 5720

*Paspalum* 3209

*Pennisetum* 3209, 5720, 10249

*Phaseolus* 5658

*Phleum* 3216, 7230

*Secale* 7984, 8010

*Secale* × *Triticum*, triticaire 5949, 5953,  
7984

*Setaria* 5720

*Solanum*, potato 2266

*Sorghastrum* 8248, 9743

*Sorghum* 1190, 2096, 3153, 5080, 8140,  
8141, 10249, 10578

book 5720

*Trifolium*, minor species 3209

*Trifolium*, red clover 1259

*Trifolium*, white clover 7230

*Trisetum* 431

*Triticum* 1717, 7984, 8702, 10338

vegetable crops, review 826

**Quality, for nutrition contd.**

*Vicia*, broad bean 4670, 11085

*Zea*, maize 269, 1018, 1040, 1944, 3028,  
3059, 5997, 7061, 7064, 8051, 8702

review 4052

**Quality, for nutrition, technique**

*Brassica*, kale 1545

*Medicago* 3243

*Sorghum* 10580

**Quality, for pickling and salting**

*Brassica*, cabbage 1538

*Cucumis*, cucumber 2627, 4635, 8536

*Daucus* 7657

*Olea* 9075

**Quality, for popping, *Zea*, popcorn 1141, 5021****Quality, for processing, *Malus* 4506**

**Quality, for smoking, *Nicotiana* 598, 608,**  
609, 612, 2380, 3420, 3438, 4430, 6406,  
7454, 7455, 8334, 9858, 9863, 10771,  
10772, 10774, 10775

**Quality, for storage**

*Acca* 10215

*Allium*, garlic 6612, 9237

*Allium*, onion 2602

*Brassica*, cabbage 4617

*Capsicum* 656, 2453

*Cucumis*, cucumber 4635, 8537

*Cydonia* 9113

*Humulus* 10807

*Ipomoea* 522, 2282, 5275, 7364

*Lycopersicon* 1517, 1521, 3716, 6652,  
10079

*Malus* 667, 1445, 3497, 6478, 6488,  
6489, 9107, 9929, 10862

*Musa* 763

*Prunus*, cherry 2493

*Psidium* 4541

*Pyrus* 6478, 6494, 7559

*Secale* × *Triticum*, triticaire 2948

*Solanum*, potato 3318, 6317, 6318, 8278,  
8975, 10691

*Triticum* 2948

*Vitis* 5499

*Zea*, maize 10503

**Quality, for storage, technique, *Brassica*, cabbage 4618****Quality, for sugar extraction**

*Beta*, sugar beet 2349, 9843

*Saccharum* 3386, 4407, 6375

*Sorghum* 10569

**Quality, for sugar extraction, technique, *Beta*, sugar beet 3391****Quality, for transport (see Mechanical injury)****Quality, of beverage**

*Camellia* 625, 1386, 2395, 7479, 9406,  
9870, 10213, 10217

*Coffea* 10802

**Quality, of cider, *Malus* 8392****Quality, of distilled spirit, *Prunus*, peach 3560****Quality, of fibre**

*Boehmeria* 10746

*Cannabis* 9831

*Corchorus* 9017, 10737

*Gossypium* 530, 531, 532, 533, 542, 548,  
549, 1334, 1336, 1337, 1340, 2300,

2302, 2303, 2807, 3340, 3347, 3350,

3351, 3352, 3357, 3358, 3365, 3366,

3367, 4369, 4378, 4381, 4382, 4383,

4384, 4390, 5277, 5284, 5285, 5294,

5295, 5297, 5298, 6351, 6352, 6354,

6355, 7368, 7375, 7380, 7382, 7386,

8304, 8307, 9004, 9005, 9803, 9811,

9812, 9814, 10710, 10713, 10718

*Hibiscus* 9832

*Linum* 558, 2317, 10731, 10732

**Quality, of juice**

*Beta*, beetroot 9219

*Lycopersicon* 6650

*Malus* 667, 3497

*Prunus*, cherry 5438, 7564

*Vitis* 6554

**Quality, of timber**

*Betula* 10030

*Eucalyptus* 8469

*Fagus* 8465

*Larix* 26

*Picea* 7644, 10040

*Pinus* 6588, 8477

*Populus* 2569, 8462

*Pseudotsuga* 7652

**Quality, of timber contd.**

*Quercus* 9176

**Quality, of wine**

*Malus* 687

*Oryza* 374

*Ribes*, black currant 3591

*Sorghum* 3151

*Vitis* 776, 779, 2541, 3613, 4570, 4571,

5490, 5500, 5501, 6544, 6546, 6547,

6549, 6553, 7616, 8448, 9156, 10006,

10936, 10937

**Quality, of wood pulp**

*Populus* 793

*Salix* 673

**Quality, technique**

crop plants 1681

*Dactylis* 7239

*Hordeum* 10547

***Quelea*, *Sorghum* 5083*****Quercus***

bark, texture 10947

breeding

Georgian SSR 5512

USA 7627

USSR 790

*Ceratocystis* 2564

chemicals, as nutrients, iron 1501

chemicals, mutagenic effects,

miscellaneous 9174

cold resistance 8459, 10947

*Coniophora* 9176

development and growth 9175

dormancy 9175

ecotypes 1500, 6570

fruit 1500

fruit, shape 10023

fruit, size 10023, 10024

fruit, weight 10023

genetic resources 789

hairs 10947

heat and drought resistance 10947

hermaphroditism 4579

history and evolution 4579, 5516

hybridization, interspecific 5515, 6569,

6570, 8459, 10947

increment 8459, 10024, 10947

leaf 1500, 3624, 6570

*Lentinus* 6563

mutation, induced, book 9174

pathology 5515

photosynthesis 8459

polyembryony and twinning 5782

quality, of timber 9176

seasonal growth 5516, 8459

seedlings 9175, 10024

specific gravity 9176

*Sphaerotheca* 8459, 10947

taxonomy 5516, 6568, 6569

vascular tissue 6568

**Quince (see *Chaenomeles*; *Cydonia*)****Races (see Ecotypes; Geographical races; Land races)****Radiation 3804**

*Camellia* 1677, 2392, 9406, 10213

cereals 1046

*Citrus* 1677

*Citrus*, lemon 10216



**Rape** (see *Brassica*, rape)**Raphanus**

- Agrobacterium* 845
- Albugo* 2588
- aneuploidy 9231
- breeding
  - Kazakh SSR 9212
  - Lithuanian SSR 9228
  - Ukrainian SSR 9211
  - USSR 9208, 9210, 9215
- chemicals, as plant constituents
  - chlorophyll 1531, 10971
  - cyranidin 3654
  - fatty acids 859
  - glucosinolates 3653
  - glycoprotein 6616
  - oil, fatty 859
  - pelargonidin 3654
  - peroxidase 843
  - sinapine, technique 10232
- cold resistance 9232
- corolla, colour 1525
- cytoplasmic inheritance 853
- development and growth 841, 5554
- Fusarium* 5553, 6605, 6618
- $\gamma$  rays 9228
- genetics
  - corolla, colour 1525
  - cyranidin 3654
  - hairs 842, 3654
  - leaf 3654
  - pelargonidin 3654
  - peroxidase 843
  - root, colour 3654
  - seed, colour 3654
  - stem, colour 3654
  - sterility and fertility 6616
  - sterility, male 10971
- genome analysis 853
- glass and plastic, cultivation under 841, 5554
- growth period 10988
- gynecium 6616
- hairs 842, 3654
- haploidy 10987
- heritability
  - growth period 10988
  - yield components 10988
- Heterodera*, technique 5578
- heterozygosis 1524
- hybridization, interspecific 840
- inbreeding 1524, 2588, 10971
- leaf 3654
- light, effect of 5554
- linkage 3654
- Lipaphis* 2598
- meiosis 840, 9231, 10987
- multiple alleles 843
- multiple genes, sterility and fertility 10208
- mutation 1525
- mutation, induced 9228, 10981
- plant introduction, to Cuba 9214
- Plasmodiophora* 6618
- physiological races 4605
- pollen 3652
- pollination 3652
- polyembryony and twinning 10987
- quality, for fresh consumption 844
- root, colour 2588, 3654
- seed, colour 3654
- sowing and planting date 844
- stem, colour 3654
- sterility and fertility 2598, 10208
- sterility and fertility, technique 6616
- sterility, male 10971
- sterility, male, cytoplasmic 857, 2588, 3458
- sterility, self 858, 3652
- taxonomy 9208
- temperature, effect of 841, 5554
- tissue culture 1522
- varieties
  - Belorussian SSR 5552
  - Japan 5553
  - Lithuanian SSR 9228
  - Netherlands 839
  - Ukrainian SSR 9230
  - USSR 9215
- variety trials
  - Belorussian SSR 5552
  - India 8505, 9229
  - USSR 821, 4318

**Raphanus contd.**

- yield components 10988
- Raphanus*  $\times$  *Brassica*, hybridization,
  - intergeneric 852, 853, 855, 856, 1401, 1530, 1531, 3660, 3667, 3673, 3674, 5569, 9407
- Raphanus*  $\times$  *Brassica*, cabbage,
  - hybridization, intergeneric 2606, 3660
- Raphanus*  $\times$  *Brassica*, cabbage  $\times$  *Brassica*,
  - kale, hybridization, intergeneric 3678
- Raphanus*  $\times$  *Brassica*, cabbage  $\times$  *Brassica*,
  - rape, hybridization, intergeneric 3458
- Raphanus*  $\times$  *Brassica*, kale, hybridization,
  - intergeneric 3662, 10987
- Raphanus*  $\times$  *Brassica*, oil crops,
  - hybridization, intergeneric 9238
- Raphanus*  $\times$  *Brassica*, rape, hybridization,
  - intergeneric 2606, 5572
- Raphanus*  $\times$  *Brassica*, turnip, hybridization,
  - intergeneric 2606
- Raspberry** (see *Rubus*, raspberry)
- Ratooning**
  - Oryza* 8173
  - Sorghum* 1191, 4122, 4125, 4149, 6124
- Rauwolfia**
  - genetic resources 7525
  - germplasm banks, technique 7818
  - tissue culture 7818, 9097
- Recessiveness** (see *Dominance*)
- Reciprocal effects**
  - Cucumis*, sterility and fertility 8525
  - Glycine*, manganese 11162
  - Oryza*, sterility, male 8172
  - Secale* 8785
  - Triticum*
    - gluten 8751
    - height 8741, 9463
- Recombination** 2, 74, 2775, 2779, 4780, 5723, 5752, 6828, 9389
  - Brassica* 1533
  - Cicer* 2747
  - Fragaria* 676
  - Gossypium* 528, 4372, 6344
  - Hordeum* 6, 74, 299, 4090, 8089
  - Lupinus* 6, 470
  - Lycopersicon* 58, 823, 891, 892, 893, 894, 895, 897, 899, 900, 923, 1555, 1556, 2639, 3706, 4638, 4639
  - Malus* 5421
  - Nicotiana* 823
  - Oryza* 6146
  - Pisum* 974, 980
  - Ribes*, black currant 747
  - Ribes*, black currant  $\times$  *Ribes*, gooseberry 676
  - Secale* 48
  - Secale*  $\times$  *Triticum*, tritcale 58, 74, 215, 216, 218
  - Solanum* 823
  - Solanum*, egg plant 823
  - Solanum*, potato 823, 9771
  - Triticum* 58, 74, 119, 126, 131, 176, 177, 178, 1059, 2937, 5901, 9389
  - Vicia*, broad bean 48
  - Zea*, maize 249, 3031, 4015, 4025, 4960, 4967, 4969, 4970, 5999, 10429, 10460
- Recombination, mitotic** (see *Mitotic recombination*)
- Red cabbage** (see *Brassica*, red cabbage)
- Red clover** (see *Trifolium*, red clover)
- Red currant** (see *Ribes*, red currant)
- Red leaf**, *Gossypium* 2308
- Red leaf spot**, *Pennisetum* 9634
- Reduction division** (see *Meiosis*)
- Reed grass** (see *Calamagrostis*; *Phalaris*)
- Reflectance**
  - Avena* 4822, 7870
  - Hordeum* 4822, 7870
  - Triticum* 4822, 7870
- Replant disease**, *Malus* 3497
- Reproduction**
  - crop plants 6851
  - fruit crops 4501
- Respiration** (see also *Photorespiration*)
  - Beta*, sugar beet 2340
  - cereals 1714, 1715
  - Festuca* 2197
  - Glycine* 5794
  - Gossypium* 7388
  - Hordeum* 5056, 7863, 10552
  - Ipomoea* 5275
  - Lactuca* 5598
  - Lycopersicon* 5629, 11043

**Respiration contd.**

- Nicotiana* 607
- Pinus* 3643
- Pisum* 7787
- Secale* 77
- Solanum*, potato 6306
- Triticum* 77, 1713, 7863, 7937
- Vitis* 5503
- Zea*, maize 77, 285, 3036, 7863, 9561
- Respiration, technique**, *Beta*, sugar beet 6386
- Review**
  - Abies*, geographical races 817
  - Acca*, mutation, induced 2814
  - Agropyron*  $\times$  *Triticum*, hybridization, intergeneric 1770
  - anther culture 7815
- Brassica**
  - breeding 855
  - chemicals, as plant constituents, oil, fatty 859
  - cytology 6614
  - dormancy 863
  - fungi 5575
  - germination 863
  - history and evolution 6614
  - hybridization, interspecific 856
  - polyploidy 855
  - seed storage 862
  - sterility, male 857
  - sterility, male, cytoplasmic 857
  - sterility, self 858, 6615
  - taxonomy 6614
- Brassica, rape**
  - breeding 860, 861
  - chemicals, as plant constituents
    - glucosinolates 861
    - oil, fatty 860
- Brassica**  $\times$  *Raphanus*, hybridization,
  - intergeneric 856
- Bromus**, agronomy 9730
- Capsicum**
  - flower 653
  - flowering 653
- Carya**, insects 9171
- cereals
  - chemicals, as nutrients, nitrate 84
  - chemicals, as plant constituents
    - growth regulators 1709
    - nitrate reductase 84
    - nitrogen 84
    - prolamin 1033
    - protein 1021
    - protein, technique 6882
    - starch 80
    - sucrose 80
  - heat and drought resistance 1721
  - Helminthosporium* 8705
  - hybridization, intergeneric 75
  - hybridization, interspecific 75
  - inflorescence 1706
  - photosynthesis 1711
  - Puccinia* 7874
  - sexual reproduction 10626
  - varieties, classification 1047
- chemicals, as plant constituents
  - enzymes, techniques 5734
  - nucleic acids 5742, 7811
- Citrus**
  - chemicals, as plant constituents,
    - ascorbic acid 3566
  - mutation, induced 2814
  - tissue culture 5452
- Cocos**, polyembryony and twinning 3583
- crop plants
  - anther culture 2815, 9355, 9356, 9358
  - breeding 3842, 9396
  - chemicals, as plant constituents
    - nucleic acids 8
    - protein 1018, 1019, 1024
  - chemicals, general effects
    - bacterial toxins 1690
    - fungal toxins 1690
  - chromatids, technique 10096
  - fungi 1687, 1691
  - genetics
    - bacterial toxins 1690
    - fungal toxins 1690
    - fungi 2820
    - pathology 1692
    - photosynthesis 63
  - germplasm banks 1670
  - haploidy 5781, 10205



## Review contd.

## crop plants contd.

- hybridization, interspecific 8684
- insects 9413
- molecular genetics 8
- mutation 6865
- mutation, induced 2814
- pathology 1026, 1691, 1693, 2824, 2825, 5797
- photosynthesis 63
- physiology 6836
- pollen, technique 22
- polyploidy 6836, 7850, 7853, 7854
- protoplast fusion 8687
- protoplasts 8687
- salinity 68, 1684, 6875
- taxonomy 1683
- tissue culture 8687
- vegetative reproduction 2787, 3826, 5748
- viruses 2827
- crossing over 17
- Crotalaria*, chromosomes, number 8320
- Cucurbitaceae, taxonomy 5600
- Festuca*
  - anatomy 7256
  - breeding 7258
  - cytology 7257
  - history and evolution 7256
  - taxonomy 7256
- Ficus*, mutation, induced 2814
- Fragaria*, mutation, induced 2814
- fungi, genetics, crop plants 2820
- Gossypium*
  - haploidy 5288
  - insects 10726
- grasses
  - breeding 2180
  - cold resistance 7237
  - flowering 62
  - genetics, flowering 62
  - pollination 10625
  - sexual reproduction 10626
- haploidy 1629, 10205
- Helianthus*, sunflower, sterility, male 10227
- heterostyly 10207
- Hevea*, fungi 4500
- Hordeum*
  - breeding 1160
  - USSR 7108
  - cytology 1161
  - genetics 1161
  - haploidy 5781
  - hybridization, intergeneric 1159
  - hybridization, interspecific 1159
- Hordeum* × *Triticum*, hybridization, intergeneric 10265
- leguminous forage crops
  - genetics, *Rhizobium* 6241
  - nitrogen fixation 6241
- Linum*, sterility, male, cytoplasmic 557
- Malus*, *Erwinia* 678
- Manihot*
  - breeding 2352
  - Africa 4420
  - viruses 7430
- molecular genetics 7811
- mutation
  - crossing over 8666
  - meiosis 8666
- mutation, induced 5739
  - crossing over 8666
  - meiosis 8666
- Nicotiana*
  - botany 2369
  - chloroplasts 602
  - cytology, technique 2370
  - cytoplasmic inheritance 602
  - hybridization, interspecific 2371
  - sterility, male, cytoplasmic 7453
  - viruses 2377
- nucleolus 10198
- Oryza*
  - agronomy 1229
  - anther culture 2815
  - breeding 345
  - USA 6877
  - Corticium* 9707
  - genetics 345
  - height 6877
  - meiosis 2126
  - mutation, induced 3177

## Review contd.

*Oryza* contd.

- Nilaparvata* 402
- pollution, atmospheric 381
- Pyricularia* 2170, 6183, 6184, 6185, 6188
- quality 6161, 8181
- quality, for cooking 6163
- Xanthomonas* 1232, 5138
- physiological races 384
- Phaseolus*
  - flowering 62
  - genetics, flowering 62
- Pisum*
  - flowering 62
  - fungi, technique 11078
  - genetics, flowering 62
- Poaceae, pollen, technique 22
- polyploidy 5513, 5745, 5746, 6833, 6834, 6837, 6838, 6841
- population genetics 5734, 5738
- protoplast fusion 4791, 5752, 8661, 8662
- protoplasts 1010
- Prunus*, almond, mutation, induced 2814
- pulses
  - chemicals, as plant constituents, protein 1021
  - genetics, *Rhizobium* 6241
  - history and evolution 10089
  - nitrogen fixation 6241
  - taxonomy 10089
- Punica*, mutation, induced 2814
- Pyricularia*, variation 2170
- Pyrus*, *Erwinia* 678
- Rubus*, blackberry, breeding, Sweden 5416
- Secale*, hybridization, wide 4002
- Secale* × *Triticum*, tritcale
  - breeding 1874
  - Bulgaria 211
  - grain shrivelling 1108
  - hybridization, intergeneric 1874
  - polyploidy 7851
  - sterility, male 1878
- Solanum*, taxonomy 765
- Solanum*, egg plant
  - flower 653
  - flowering 653
- Solanum*, potato
  - breeding 2253
  - German Democratic Republic 4325
  - German Federal Republic 4325
  - haploidy 5781
  - Phoma*, technique 510
  - Phytophthora* 2823, 5262
- Sorghum*
  - breeding, Australia 3140
  - flowering 62
  - genetics, flowering 62
  - heat and drought resistance 1721, 5084
  - insects 8144
  - insects, technique 8145
- Theobroma*
  - centres of origin or diversity 1388
  - plant introduction, to Ghana 6428
- transduction 1611
- transformation 1611
- Triticum*
  - aneuploidy 1071, 7852
  - breeding, USA 6877
  - flowering 62
  - fungi 196
  - genetics, flowering 62, 10267
  - height 6877
  - hybrid varieties 2893
  - sterility, male 1878
- vegetable crops
  - cold resistance 70
  - glass and plastic, cultivation under 70
  - light, effect of 70
  - quality, for nutrition 826
- Vicia*, broad bean
  - chromatids, technique 10096
  - cytology 10096
- Zea*, maize
  - breeding 4947
  - Italy 1935
  - fungi 6059
  - genetics 4947
  - habit 1130
  - heat and drought resistance 1721
  - history and evolution 276

## Review contd.

*Zea*, maize contd.

- quality, for nutrition 4052
- sterility, male 10227
- Trichometasphaeria*, physiological races 1922
- Rhagoletis*, *Malus* 3532
- Rheum*, chromosomes, number 7848
- Rhizobium*
  - Arachis* 3479, 7517, 8375
  - physiological races 5395
  - Cajanus* 2797
  - chemicals, as plant constituents
    - growth regulators 3767
    - hydrogenase 3236
    - nitrate reductase 4287
  - chemicals, general effects
    - antibiotics 947
    - streptomycin 947
  - chemicals, mutagenic effects, *N*-methyl-*N*'-nitroso-*N*-nitrosoguanidine 9751
  - Cicer* 986, 3790, 4672, 5710
  - physiological races 2796, 4678
  - competition 3277, 11122
  - crop plants 8688, 9395
  - Daucus* - *Vicia*, broad bean 1673
  - genetics, nitrogen fixation 9395
  - germplasm banks
    - Colombia 1686
    - German Federal Republic 1655
    - India 1686
    - USA 1686
  - Glycine* 2730, 2731, 3759, 3762, 5697, 6766, 7770, 9309, 10146, 10148, 11120, 11121, 11131, 11159
  - nitrogen fixation 11120
  - physiological races 970, 1638, 2733, 3761, 3765, 3767, 5693, 5694, 6773, 6774, 11122, 11160
  - India 2734
  - Nigeria 8609
  - leguminous forage crops 8688
  - Lens* 4672
  - linkage 3236
  - Lotus*, physiological races 474, 475, 476
  - Lupinus* 7732
  - physiological races, USSR 3296
  - Medicago* 3247, 3252, 4287, 5221, 5222, 6249, 9751, 10664, 10665
  - physiological races 444, 2226, 3246
  - molecular genetics 3236
  - mutation 463
  - nitrogen fixation 9395, 11120, 11122
  - Onobrychis* 3292
  - Phaseolus* 6719, 8582
  - physiological races 947, 4687
  - Pisum*, physiological races 10176
  - Psophocarpus* 6806
  - physiological races 6807
  - pulses 1686, 7732, 8688
  - physiological races 4678
  - taxonomy 7732
  - Trifolium*, crimson clover 7301
  - Trifolium*, red clover, physiological races 3277
  - Trifolium*, white clover 463, 1285, 8265, 8266
  - physiological races 3277
  - Vicia*, broad bean 674
  - physiological races 4682
  - Vigna*, cowpea 3740, 5667, 7732
  - Vigna*, minor species, physiological races 4678
- Rhizobium*, technique, *Trifolium*, white clover 463
- Rhizoctonia* (see also *Corticium*)
  - Arachis* 4487
  - Beta*, sugar beet 574, 6392, 7427
  - Brassica*, swede 3308
  - Cicer* 4667
  - Dactylis* 6209
  - Fragaria* 8432, 8433
  - Medicago* 5211
  - Oryza* 4221, 5141, 6178, 9367
  - Phaseolus* 6728, 6730, 8586
  - Pinus* 4590
  - Pisum* 11183
  - Solanum*, potato 1319, 8295
  - Vicia*, broad bean 4668
  - Vigna*, cowpea 3740, 6739
  - Vigna*, minor species 6744
- Rhizoctonia*, technique, *Phaseolus* 2698, 11079



**Rhizome, number***Cynodon* 5174*Poa* 2189**Rhizopus***Cucumis*, cucumber 3701*Ipomoea* 4802*Lycopersicon* 11061*Rubus*, raspberry 4547, 10900, 10902*Sorghum* 4160**Rhizopus, technique, *Helianthus*, sunflower**

10824

**Rhizosphere***Oryza* 2848, 3831*Triticum* 6891, 10335**Rhodes grass (see *Chloris*)****Rhopalosiphum***Avena* 3010, 4933, 4934, 10258*Hordeum* 319, 10255, 10258*Secale* × *Triticum*, triticale 10400, 10401*Sorghum* 3156, 4173, 8144, 8145*Triticum* 2988, 10255, 10258*Zea*, maize 9594**Rhubarb (see *Rheum*)****Rhyacionia, *Pinus* 5539, 8476****Rhynchosinapis × *Hutera*, hybridization, intergeneric 3665****Rhynchosporium***Avena* 5820*Hordeum* 1169, 3111, 3124, 3878, 5022, 5055, 5820, 6077, 10525

physiological races, Italy 7110

*Oryza* 2168, 8155, 8208, 9367*Triticum* 5820**Rhynchosporium, technique, *Oryza* 5140****Rhizopertha, *Sorghum* 8145*****Ribes***

embryology 8424

meiosis 8424

mixoploidy 10916

polyploidy 8424

*Sphaerotheca* 6530

sterility and fertility 8424, 10916

***Ribes*, black currant**

aphids 677

breeding, Kazakh SSR 8384

breeding, technique 10850

*Cecidophyopsis* 3500, 5472

chemicals, as plant constituents

anthocyanins 2524

ascorbic acid 3500, 7588

ascorbic acid, technique 7587

chlorophyll 2524

cold resistance 670, 3500, 5415, 5473, 7589, 9983, 10915

*Cronartium* 5472

development and growth 10915

embryology 7585

fruit, size 7586

genetics, *Sphaerotheca* 9984

germplasm banks, USSR 6475

growth period 9983, 10914, 10915

hybridization, interspecific 743, 746, 747, 3500, 5415, 7585, 7588, 9981, 10915

laser beams 10915

leaf 2524

light, effect of 10850

meiosis 743, 747

mutation, induced 2524

development and growth 10915

photoperiodism 10850

polyploidy 743, 7585

*Pseudopeziza* 4551, 5472

quality, of wine 3591

radiation 2524

recombination 747

seasonal growth 8426, 10853

*Sphaerotheca* 2524, 2525, 4550, 5472, 9984, 10915

sterility and fertility 743, 10915

sterility, self 746

temperature, effect of 743

varieties

Lithuanian SSR 6531

USSR 9981, 9982

variety trials

Kazakh SSR 745, 3590

Poland 1475

USSR 675

Yugoslavia 8426

viruses 3500

***Ribes*, black currant × *Ribes*, gooseberry**

aneuploidy 676

***Ribes*, black currant × *Ribes*, gooseberry contd.**

chemicals, fertility and sex, effects

1,4-bisdiazaoacetylbutane 676

*N*-nitroso-*N*-ethylurea 676

hybridization, interspecific 676, 2523

mutation, induced 676

pollen 2523

recombination 676

sterility and fertility 676, 2523

sterility, self 2523

***Ribes*, gooseberry**

cold resistance 3592

fruit, weight 671

hybridization, interspecific 3501

meiosis 743

*Microsphaera* 3592

ovule, number 671

polyploidy 743

seasonal growth 10853

seed, number 671

*Sphaerotheca* 748, 3501, 4550

sterility and fertility 743

sterility, self 5474

temperature, effect of 743

varieties, UK 3501

variety trials

Czechoslovakia 3592

Kazakh SSR 748, 749

viruses 3501

***Ribes*, gooseberry × *Ribes*, black currant,**

hybridization, interspecific 676, 2523

***Ribes*, red currant**

embryo culture 744

growth period 10914

polyembryony and twinning 744

rooting capacity 7584

seasonal growth 10853

*Sphaerotheca* 4550

sterility and fertility 8425

sterility, self 8425

**Rice (see *Oryza*)*****Ricinus***

chemicals, as nutrients

nitrogen 2407

phosphorus 2407

chemicals, as plant constituents

aminoacids 2407

chlorophyll 2407, 9062, 10815

sucrose 2405

sugar 2405

wax 4468

chemicals, fertility and sex, effects

aminoacids 5374

arginine 5374

cobalt chloride 1408

glutamic acid 5374

leucine 5374

serine 5374

silver nitrate 1408

chemicals, general effects

kinetin 2405

morphactins 2405

chromosomes, morphology 634

colour 2407

*Fusarium* 3467

genetics

seed, colour 4468

sex 1407

spines 4468

stem, colour 4468

wax 4468

genotype × environmental interaction

1407

haploidy 9062, 10815

height 6440, 9061

inflorescence 1407, 9061

internode, size 6440

linkage 4468

meiosis 634

*Melampsorella* 2406

modifiers 4468

mutation, induced 1407, 7846

neutrons 1407

nucleolus 634

photosynthesis 9062, 10815

polyploidy 9062, 10815

*Samia* 2407

seed, colour 4468

seed, weight 9061

sex 1407, 1408, 2405

spines 4468

stem, colour 4468

***Ricinus* contd.**

varieties 7846

India 8364

variety trials

India 9061

Pakistan 6440

**Ripening***Fragaria* 5475*Hibiscus* 7404, 7405, 7406*Lycopersicon* 909, 1517, 2641, 3716,

8553, 11061

*Malus* 684*Musa* 2532*Prunus*, peach 710*Psidium* 4541*Triticum* 1754**Rodents, *Manihot* 5337*****Roegneria*, breeding, USSR 3205****Root***Agrostis* 4240*Asparagus* 1528*Avena* 7867*Beta*, sugar beet 2342, 9029*Camellia* 10799*Corchorus* 3380*Festuca* 4240*Glycine* 11121, 11141, 11144*Hordeum* 1171, 2038, 4095, 7867, 9614*Lolium* 10637*Medicago* 445, 3247, 3252, 3269, 6247,

8253, 10659

*Nicotiana* 615, 1382, 1383, 4445*Oryza* 1632, 6170*Populus* 796*Secale* 1912, 5975*Secale* × *Triticum* 1912*Sorghum* 4171*Trifolium* 4292*Trifolium*, red clover 1281*Trifolium*, white clover 2239*Triticum* 2914, 3928, 5844, 7867, 9459,

10335

*Vicia*, broad bean 4668*Vitis* 7610*Zea*, maize 1969, 4048, 4973, 4986, 5000,

9585, 10473, 10474, 10475

**Root, anatomy***Lupinus* 7304*Mangifera* 10893*Pennisetum* 7122*Sorghum* 2794*Triticum* 10331**Root, colour***Daucus* 836, 5546, 6602, 6603*Raphanus* 2588, 3654**Root crops**

breeding

USSR 8963

book 6279

genetic resources 9404

pathology 1296, 3869

pathology, technique 9769

**Root, length***Cicer* 9765*Glycine* 11123*Hordeum* 10542*Lathyrus* 9765*Pisum* 9765*Triticum* 10310**Root, number***Aegilops* 1746*Hordeum* 6101*Ipomoea* 521*Musa* 3605*Phalaris* 5197*Saccharum* 1361*Secale* 1114*Triticum* 1746, 2920, 6945, 10311*Vitis* 10012**Root, shape, *Daucus* 4603, 5546****Root, size***Beta*, sugar beet 2344*Daucus* 4603, 5548, 10985*Gossypium* 6263*Hordeum* 8119*Ipomoea* 521*Lycopersicon* 7715*Medicago* 5220*Oryza* 3158, 8156*Picea* 806*Pinus* 806*Secale* 1890*Secale* × *Triticum*, triticale 1890



**Root, size contd.**

- Triticum* 1749, 1755, 1890, 4896, 6945  
*Vitis* 10012

**Root, technique**

- crop plants 10233  
*Hordeum* 10233

**Root, texture, *Daucus* 1523****Root, weight**

- Avena* 3004  
*Beta*, fodder beet 2349, 7312  
*Beta*, sugar beet 2349, 4415, 6383, 8328  
*Daucus* 5548, 10985  
*Hordeum* 8119  
*Ipomoea* 521  
*Medicago* 6247  
*Picea* 806  
*Pinus* 806  
*Secale* 1114  
*Trifolium*, red clover 461  
*Triticum* 5904, 10310  
*Zea*, maize 4974

**Rooting capacity**

- Corylus* 5508  
*Gossypium* 2285  
*Hippophae* 4561  
*Lycopersicon* 7707  
*Olea* 9896  
*Oryza* 5106  
*Populus* 4582  
*Prunus*, cherry 3553  
*Prunus*, peach 713  
*Prunus*, plum 2489  
*Ribes*, red currant 7584  
*Saccharum* 9838  
*Vaccinium* 752  
*Vitis* 6549  
*Zea*, maize 10473

**Rootstock (see also Grafting)**

- Citrus* 9962, 10883, 10886  
*Citrus*, orange  $\times$  *Poncirus* 9962  
*Cucumis*, cucumber 8539  
*Lycopersicon* 11058  
*Malus* 1430, 1432, 1444, 3497, 3528, 5413, 5419, 5423, 6487, 7552  
*Mangifera* 7570, 10893  
*Persea* 5464, 5465, 7579  
*Poncirus* 9962  
*Prunus*, cherry 1426, 1427, 3551  
*Prunus*, peach 1435, 4533, 6514  
*Prunus*, plum 9942  
*Pyrus* 5419  
*Vitis* 5502, 8450, 10931

***Rorippa*, chromosomes, number 3861*****Rosa*****breeding**

- Bulgaria 6460  
 Ukrainian SSR 9904

**chemicals, as plant constituents**

- ascorbic acid 651, 5397, 9917  
 phenols 651  
 chemicals, mutagenic effects, *N*-nitroso-*N*-ethylurea 10835  
 cold resistance 5397  
 flower, colour 3483  
 fruit, shape 9917  
 germplasm banks, Ukrainian SSR 9903  
 heterosis 5397  
 hybridization, interspecific 5397  
 inbreeding 10837  
 mutation, induced, technique 10835  
 sterility, self 10837

**Rosaceae****chemicals, as plant constituents, sorbitol 2786****chromosomes, number 2786****Roselle (see Hibiscus)****Rotation (see Succession, crop)*****Rotylenchulus*, *Glycine* 3772, 11174*****Rotylenchulus*, *Solanum*, potato 6334****Rubber (see Hevea)*****Rubus*****apomixis 2466****breeding**

- Finland 10904  
 symposium 10898  
 chemicals, as plant constituents  
 ascorbic acid 6529  
 disaccharides 6529  
 monosaccharides 6529  
 pectin 6529

**cold resistance 1471****heritability 1471****hybridization, interspecific 6529, 10904*****Rubus* contd.****leaf 2519**

- quality, for fresh consumption 6529  
 variation 2519

***Rubus*, blackberry****apomixis 2466****breeding**

- Sweden, review 5416

**USA 10903****chemicals, as plant constituents, acids 742****cold resistance 10903****fruit, colour 742****fruit, weight 5471****genotype  $\times$  environmental interaction 7583****geography 5471****germination 5471****growth period 5471, 7583****hybridization, interspecific 7583****quality, for freezing 742****spines 10903****temperature, effect of 7583****tissue culture 4504****varieties****Italy 6477****USA 3589, 10903*****Rubus*, blackberry  $\times$  *Rubus*, raspberry****chemicals, as plant constituents****ascorbic acid 6529****disaccharides 6529****monosaccharides 6529****pectin 6529****hybridization, interspecific 6529, 7583, 10905****quality, for fresh consumption 6529*****Rubus*, raspberry*****Alternaria* 9979*****Amphorophora* 2521, 3499, 4548, 5795, 9413, 10902, 10906*****Amphorophora*, technique 5470****aphids 677*****Aphis* 3588****apomixis 2466*****Botrytis* 3499, 5468, 5469, 9979, 10900, 10902, 10905, 10907, 10913****breeding****UK 10905, 10906****USA 10909****Yugoslavia 10910*****Byturus* 10906****chemicals, as plant constituents****acids 4544****anthocyanins 10900****ascorbic acid 4544****cyanidin-3-glucoside 5467****cyanidin-3-glucosylrutinoside 5467****cyanidin-3-rutinoside 5467****cyanidin-3-sophoroside 5467****sugar 4544****chemicals, general effects, 6-benzylaminopurine 5470****chilling requirement 10899*****Cladosporium* 9979*****Didymella* 3499, 5468, 5469, 10905*****Elsinoe* 3499, 4546****flowering 740****fruit, size 2521, 5468****fruit, texture 3499, 4543, 4547, 10900****fruit, texture, technique 4543****fungi 4545, 10906****genetics*****Amphorophora* 10906****anthocyanins 10900****viruses 4549, 10905****growth period 1473, 3499****gynecium 8423****habit 741, 9978****harvesting 10906****harvesting, mechanical 3499****hybridization, interspecific 2522, 3499, 4549, 5415, 9979, 10906, 10912****inbreeding 5467*****Leptosphaeria* 2522, 10905****multiple genes 2522****multivariate analysis 9978*****Phytophthora* 9980, 10901****pollen, size 8423****polyploidy 7580*****Pratylenchus* 10901****quality, for freezing 7582*****Rhizopus* 4547, 10900, 10902****seasonal growth 10853, 10906*****Rubus*, raspberry contd.****sex 10912*****Sphaerotheca* 3499, 5468****sterility, self 8423*****Tetranychus* 1474****tissue culture 7581****varieties****Canada 10902****German Federal Republic 2521****Sweden 10908****variety trials****Italy 8422****Kazakh SSR 3587****Moldavian SSR 740****Netherlands 2520****Switzerland 1472****USSR 675, 7532, 10911****viruses 4545, 4549, 9413, 10905****yield components 741, 9978*****Rubus*, raspberry  $\times$  *Rubus*, blackberry, hybridization, interspecific 6529, 7583, 10905*****Rumex*, chromosomes, number 7848*****Russeting*, *Pyrus* 3511*****Rutabaga* (see *Brassica*, swede)*****Rye* (see *Secale*)*****Ryegrass* (see *Lolium*)*****Saccharicoccus*, *Saccharum* 10759*****Saccharum*****anther culture 7413, 7415, 7417*****Argyroploce* 571****breeding****bibliography 1358****Dominican Republic 10747****Japan 9371****Philippines 563****USA 562****chemicals, as plant constituents****aminoacids 10752****callose 7414****chlorophyll 10752****sucrose 5320, 7412****sugar 2333, 4403****chemicals, general effects*****Drechslera* toxin 5322****glyphosine 4403****helminthosporoside 9025, 9839****sodium chloride 9023****chemicals, mutagenic effects, ethyl methanesulphonate 6374*****Chilo*, technique 2338****cold resistance 568, 1363, 10752, 10753****combining ability 7412****density of stand 10753****diallel analysis 7411*****Drechslera* 1687, 4411, 5317, 5322*****Drechslera*, technique 9025, 9839****flowering 3385** **$\gamma$  rays 3385, 6374****genetic resources 7408****germination 6374, 9022****germplasm banks, USA 7408*****Glomerella* 2336, 4410****physiological races, India 10754****growth period 5318****gynecium 7414****haploidy 7417****heritability 6371****hybrid varieties 566****hybridization, interspecific 5318, 8684****inbreeding 7411****light, effect of 4405****maternal effects 9024*****Matsumuratettix* 9026****mutation, induced 3385, 5780, 6374****photoperiodism 5318*****Physalospora* 10755****plant introduction, to Japan 9371****pollen 7414****pollination 4405*****Pseudomonas*, physiological races, Mexico 5321*****Puccinia* 570, 3387, 5317, 9021*****Puccinia*, technique 10758****quality, for sugar extraction 3386, 4407, 6375****root, number 1361****rooting capacity 9838*****Saccharicoccus* 10759****salinity 9023****seed production 4405****seedlings 5320****soil moisture 9022**



**Saccharum** *contd.*

- spikelets, aberrant 4404
- stability, technique 2332
- Stagonospora* 569
- sterility and fertility 5318, 7414
- temperature, effect of 4405, 9022
- tissue culture 4406, 9023, 9837
- translocation, physiological 1362
- Ustilago* 2337, 3832, 5317, 6374, 6376, 8675, 10755, 10756, 10757
- Ustilago*, technique 4408, 4412
- varieties
  - India 2334, 3384, 6372, 6373
  - Mauritius 1360
  - Philippines 566, 567
  - USA 565, 5317, 10750, 10751
- variety trials
  - Barbados 9836
  - Cuba 7409, 7410, 9021
  - India 3384, 6371
  - Indonesia 3383
  - Peru 6370
  - Philippines 564
  - Puerto Rico 10749
  - USA 565, 1359
- variety trials, technique 9836
- viruses 572, 4795, 5317, 5324, 9026
  - physiological races 573
- viruses, technique 4408, 5323
- waterlogging 2335
- wind 9024
- Xanthomonas* 4409, 4795, 5317
  - physiological races 8321
- yield components 5319, 5320
- yield, technique 2332
- Saccharum** × *Erianthus*, hybridization, intergeneric 7416
- Safflower** (see *Carthamus*)
- Sage** (see *Salvia*)
- Sainfoin** (see *Onobrychis*)
- Salinity**
  - Agrostis* 6214
  - Beta, beetroot 830
  - Beta, sugar beet 68, 6387
  - Brassica, rape 5373
  - Cajanus* 2797
  - cereals 7238
  - Cicer 4671
  - Citrus 6517, 6518, 10883
  - crop plants 5789, 5790, 5792
    - review 68, 1684, 6875
  - Cucumis*, cucumber 5613
  - Datura* 4790
  - Festuca* 68
  - Gossypium* 68, 550
  - grasses 7238
  - Hordeum* 68, 312, 1684, 2055, 2056, 5791, 6101, 6102, 6875, 7109, 9614, 10541
  - Lens 4671
  - Lycopersicon* 68, 910, 1684, 5791, 6875, 7703, 9272
  - Lycopersicon* × *Solanum* 7703, 7713
  - Medicago* 68, 3270, 5790
  - Melilotus* 2243
  - Morus* 2512
  - Nicotiana* 9038
  - Oryza* 68, 378, 379, 1200, 2133, 2159, 2160, 3188, 3831, 4214, 5101, 5137, 5790, 6166, 7192, 8156, 8157, 8913, 9683
  - Persea* 5464, 5465
  - Phaseolus* 5642
  - Pisum* 7787
  - Prunus*, plum 2490
  - Saccharum* 9023
  - Secale* 8780
  - Secale* × *Triticum*, triticales 8780
  - Solanum* 68
  - Sorghum* 338
  - Triticum* 68, 2960, 5791, 5829, 5906, 6875, 6900, 6953, 8726, 8780
  - Vigna*, cowpea 5642
  - Vitis* 5502
  - Zea*, maize 278
- Salinity, technique**
  - Citrus 6518
  - Festuca* 3211
  - Medicago* 3211
  - Oryza* 2137
  - vegetable crops 9217
  - Vitis* 9166

**Salix**

- bark 801
- breeding 4580
- Capreolus* 9186
- cell inclusions 5529
- chemicals, as plant constituents
  - calcium oxalate 5529
  - tannin 801
- chromosomes, number 5528
- ecotypes 2563
- epidermis 5529
- geography 4580
- hairs 5529
- heterosis 5527
- hybridization 4580, 5527
- hybridization, interspecific 5529
- leaf, anatomy 5529
- photoperiodism 2563
- pollution, atmospheric 2572
- quality, of wood pulp 673
- stomata 5529
- taxonomy 4580
- Salting quality** (see Quality, for pickling and salting)
- Salvia**
  - anther 11194
  - breeding, Ukrainian SSR 9904
  - chemicals, as plant constituents, oil, essential 10190, 10191
  - chromosomes, number 7848
  - genetic resources 10223
  - germplasm banks, Ukrainian SSR 9903
  - heat, effect of 11194
  - hermaphroditism 9341
  - pollination 9341
  - sex 9341
  - soil moisture 11194
  - sterility and fertility 9341, 11194
  - sterility, male, cytoplasmic 11194
  - taxonomy 4769
  - varieties, Bulgaria 10190, 10191
- Samia**, *Ricinus* 2407
- Sansevieria**
  - meiosis 2330
  - polyploidy 2330
  - sterility and fertility 2330
- Santalum**
  - polyploidy 2448
  - tissue culture 2448
- Sarson** (see *Brassica*, oil crops)
- Saskatoon** (see *Amelanchier*)
- Satureja**, chromosomes, number 7848
- Savory** (see *Satureja*)
- Schistocerca**, *Medicago* 3239
- Schizachyrium**
  - composite varieties 1253
  - varieties, USA 1253
- Schizaphis**
  - Aegilops* 9492
  - Aegilops* × *Triticum* 9492
  - Avena* 4933
  - Hordeum* 1156
  - Secale* × *Triticum*, triticales 10401
  - Sorghum* 1195, 3156, 4168, 4171, 5087, 8144, 8145, 10257, 10588
  - Triticum* 4917, 6987, 9492, 10257
- Scion** (see Grafting)
- Scirpophaga**, *Oryza* 8155, 8922
- Scirrhia**, *Pinus* 3645
- Sclerenchyma**
  - Oryza* 5144
  - Triticum* 6929
- Sclerophthora**, *Zea*, maize 3071, 8060, 10497
- Sclerospora**
  - Pennisetum* 324, 2793, 3136, 6118, 8672, 8876, 9630
  - Sorghum* 2794, 3888, 4156, 4163, 4164, 4167, 7158, 7161, 7162, 7163, 8132, 8146, 8704, 10568, 10569, 10583
  - physiological races, USA 4166
  - Zea*, maize 2006, 3888, 4036, 4067, 7021, 8704, 10496, 10499
  - physiological races, USA 4166
- Sclerospora**, technique
  - Pennisetum* 10565
  - Sorghum* 2098, 2100
- Sclerotinia**
  - Allium*, onion 10972
  - Arachis* 3482
  - Brassica, rape 1403, 5576
  - Daucus* 9208
  - Helianthus*, sunflower 7493

**Sclerotinia** *contd.*

- Lactuca* 4624
- Phaseolus* 949
- Prunus*, cherry 1428
- Solanum*, potato 8982
- Trifolium*, red clover 1282, 2235
- Trifolium*, white clover 8261
- Vaccinium* 2526
- Sclerotinia**, technique, *Helianthus*, sunflower 2424, 6453
- Sclerotium** (see also *Leptosphaeria*; *Macrophomina*)
  - Allium*, onion 4608
  - Helianthus*, sunflower 10822
- Scopolia**, tissue culture 9097
- Scorch**, *Dioscorea* 1635, 9033
- Scorzonera**
  - chromosomes, accessory 931
  - chromosomes, morphology 931
  - chromosomes, number 931
  - taxonomy 931
- Seakale** (see *Crambe*)
- Seasonal growth**
  - Citrus, grapefruit × *Poncirus* 726
  - Citrus, lemon 2502
  - Citrus, lemon × *Poncirus* 726
  - Citrus, mandarin 2502, 9131, 9953, 10218
  - Citrus, mandarin × *Poncirus* 726
  - Citrus, orange 2502
  - Citrus, orange × *Poncirus* 726
  - Citrus, pomelo × *Poncirus* 726
  - Corylus* 9172
  - Dactylis* 5153
  - Festuca* 5153
  - Ficus* 728
  - Fortunella* × *Poncirus* 726
  - Fragaria* 10853
  - Juglans* 786
  - Lolium* 5153
  - Malus* 3512, 10853, 10857
  - Mangifera* 736
  - Olea* 7501
  - Phleum* 2194
  - Picea* 813, 7644, 9203, 10039
  - Pinus* 809, 7639, 8480
  - Poa* 8231
  - Populus* 2566
  - Prunus*, apricot 700, 3547
  - Prunus*, apricot × *Prunus*, cherry 2487
  - Prunus*, cherry 2493, 2495, 3554, 8407, 9121
  - Prunus*, nectarine 1433
  - Prunus*, peach 710, 1433, 6514, 8413
  - Prunus*, plum 3550, 5436
  - Pseudotsuga* 6595, 7654, 7655, 8491
  - Punica* 7601
  - Pyrus* 693, 3507, 7558, 10853
  - Quercus* 5516, 8459
  - Ribes*, black currant 8426, 10853
  - Ribes*, gooseberry 10853
  - Ribes*, red currant 10853
  - Rubus*, raspberry 10853, 10906
  - Vitis* 3612, 6550, 8438, 8442
- Secale**
  - aneuploidy 7016, 10416
    - book 231
  - anther 234
  - anther, colour 10419
  - anther culture 1016, 3022, 8696, 9409
  - anther, size 10419
  - breeding 7013
    - Czechoslovakia 1669
    - German Democratic Republic 5772, 10413
    - German Federal Republic 7997
    - USSR 43, 3011, 9512
  - breeding, technique 3012, 8006
  - cell division 1048, 1912
  - cell, number 8786, 10418
  - cell, size 1912, 10396
  - cell, weight 10418
  - centres of origin or diversity 9517
  - chemicals, as nutrients
    - copper 3000
    - nitrate 10250
    - nitrogen 1913, 8009, 8010
    - phosphorus 77
    - zinc 3000
  - chemicals, as plant constituents
    - albumin 8011
    - amylase 8790, 9516
    - α-amylase 1911, 4935, 7992



**Secale contd.**

chemicals, as plant constituents *contd.*  
 $\beta$ -amylase 4942  
 anthocyanins 7016, 8002, 10419  
 enzymes 4940, 7019  
 esterase 8001  
 gliadin 7019, 8000, 8011  
 globulin 8011  
 glutenin 8011  
 heterochromatin 2804  
 histone 1910  
 nitrogen 7019  
 nucleic acids 3014, 4824, 5866, 8777, 8787, 10243, 10418  
 pentosans 7019, 8010  
 phosphatidic acid 5814  
 phosphatidylcholine 5814  
 6-phosphogluconate dehydrogenase 7015  
 prolamin 6923  
 protein 1914, 4943, 6923, 7984, 7994, 8003, 8010, 8011, 8789  
 protein, technique 76  
 resorcinols 1650, 1914, 8010  
 starch 8009  
 trypsin inhibitor, technique 2858  
 wax 10419  
 chemicals, fertility and sex, effects  
 maleic hydrazide 3020  
 MH 8791  
 NAA 3020, 8791  
 chemicals, general effects  
 aluminium 1115, 1890, 7869  
 chlormequat 5811  
 ethephon 1913, 4935, 5975, 5976  
 chemicals, mutagenic effects  
 diethyl sulphate 235  
 ethyl methanesulphonate 235  
*N*-nitroso-*N*-ethylurea 8789  
 chloroplasts 3990  
 chromatids 4939  
 chromosome translocation 2804  
 chromosomes, aberrations 48, 10417  
 chromosomes, addition and substitution 2804  
 chromosomes, morphology 4003, 7996, 7999, 8787, 9513, 10049  
 chromosomes, morphology, technique 1703, 1704, 3016  
 chromosomes, number 3015  
 cold resistance 91, 1650, 2860, 4004, 4005, 5814, 7993, 8788  
 cold resistance, technique 6975  
 combining ability 7018, 7994, 7997  
 crossing over 1887, 4939, 7998, 7999  
 cytotoxicity 3015, 7864  
 cytoplasmic inheritance 1912  
 development and growth 9514  
 diallel analysis 3019, 8785  
 digestibility 7984, 9514  
 dormancy 1911, 8790, 10420  
 embryo 10418  
 embryo culture 7996  
 environment 233  
 forage 7014, 7984  
 $\gamma$  rays 4003, 8789  
 gene location 3001, 6923, 7015, 7016  
 nucleic acids 10243  
 genetic resources 1649  
 genetics 4940  
 anther, colour 10419  
 anther, size 10419  
 anthocyanins 7016, 8002, 10419  
 esterase 8001  
 hairs 10419  
 height 4936, 8005, 8008, 8786  
 leaf, colour 8002  
 leaf, shape 10419  
 ligule, colour 10419  
 ligule, shape 10419  
 protein 8003  
 sterility, male 8007  
 sterility, male, cytoplasmic 8007, 9515  
 sterility, self 8002, 10419  
 wax 10419  
 genome analysis 6923  
 germplasm banks  
 German Democratic Republic 3013, 4001, 7012  
 Poland 1663  
 germplasm banks, technique 7012  
 gynecium 18  
 hairs 10419

**Secale contd.**

haploidy 9409, 10417  
 heat and drought resistance 3001  
 height 1913, 4004, 4936, 4941, 5975, 7018, 8003, 8004, 8005, 8006, 8008, 8786, 8789, 9514  
 heritability 1914, 7018, 7994  
 heterochromatin 8787  
 heterosis 1048, 8785  
 heterozygosis 8001  
 history and evolution 4824, 7850, 9513, 9517  
 homozygosis 8006  
 hybridization 4938  
 hybridization, interspecific 1907, 1911, 7996, 8786  
 hybridization, wide, review 4002  
 inbreeding 48, 7018, 7997, 8001  
 internode 5975, 8786  
 laser beams 10396  
 leaf, colour 8002  
 leaf, number 9514  
 leaf, shape 10419  
 light, effect of 3012  
 ligule, colour 10419  
 ligule, shape 10419  
 linkage  
 anthocyanins 8002  
 leaf, colour 8002  
 sterility, self 8002, 10419  
 lodging 1650, 4935, 5976, 7993, 8788  
 maternal effects,  $\alpha$ -amylase 7992  
*Mayetiola*, physiological races, USA 4830  
 meiosis 232, 4939, 7866, 7998, 10417  
*Micronectriella*, technique 4944  
 mitochondria 77  
 mixtures of crops or genotypes 7850  
 molecular genetics 3014, 4824  
 multiple genes 7015  
 protein 8003  
 mutation, induced 235  
 height 8003, 8789  
 protein 8789  
 nucleolus 5866  
 nucleolus, size 10396  
 nucleus 7866  
 nucleus, size 10396  
 ovule, size 5809  
 pathology 3023, 3867  
 photoperiodism 3012, 3862  
 photosynthesis 3001  
 pollen 232, 3021, 9408, 9424  
 pollen, size, technique 6881  
 pollen, technique 5810  
 polyploidy 230, 231, 232, 233, 1907, 1910, 3017, 4002, 4939, 5975, 6881, 7017, 7850, 8788, 9408, 9512, 9514, 9516, 10247, 10418  
 polyploidy, technique 3018  
*Pratylenchus* 4006  
*Pseudocercospora*, physiological races 4827, 5817, 5818  
*Puccinia*, physiological races, Canada 5821  
 quality, for milling and baking 4935, 7019, 8009, 8010, 9516  
 quality, for nutrition 7984, 8010  
 reciprocal effects 8785  
 recombination 48  
 respiration 77  
 root 1912, 5975  
 root, number 1114  
 root, size 1890  
 root, weight 1114  
 salinity 8780  
 seed, colour 235  
 seed, number 1914, 3883, 8005  
 seed, size 8005, 9516  
 seed, weight 1914, 3019, 4943, 7994, 8005  
 seedlings 6975, 10248  
 snow mould, unspecified 8788  
 stability 4937  
 sterility and fertility 7017, 7018, 7996  
 sterility, male 3020, 8007, 8791  
 sterility, male, cytoplasmic 234, 8007, 9515  
 sterility, self 48, 233, 4938, 7017, 7018, 7996, 8002, 10419  
 stomata, number 9408  
 stomata, size 9408  
 succession, crop 1316

**Secale contd.**

synthetic varieties 8785  
 temperature, effect of 91, 233, 234, 3012, 9515, 10419  
 tillering 1914, 5975, 9514  
 toxic soils 1890, 7869  
 varieties  
 Belorussian SSR 10414  
 Canada 7993  
 France 1044  
 Switzerland 1043  
 USSR 1909, 9512  
 varieties, classification 76, 1908, 8000, 8001  
 variety trials  
 Austria 4811  
 USA 72, 1042  
 USSR 7014  
 variety trials, technique 8693  
 water balance 91, 3001, 5976  
 yield 10247  
 yield components 233, 1048, 1114, 1914, 7018  
**Secale**  $\times$  **Aegilops**, hybridization, intergeneric 5974  
**Secale**  $\times$  **Agropyron**, hybridization, intergeneric 230  
**Secale**  $\times$  **Agropyron**  $\times$  **Triticum**, hybridization, intergeneric 10299  
**Secale**  $\times$  **Hordeum**, hybridization, intergeneric 1045, 2852, 3098, 4087, 7089, 8093, 8099, 8112, 10533  
**Secale**  $\times$  **Hordeum**  $\times$  **Triticum**, hybridization, intergeneric 1768, 1769, 2889, 7906  
**Secale**  $\times$  **Triticum** (see also **Secale**  $\times$  **Triticum**, tritica)  
 aneuploidy 199, 10301  
 back crossing 8777, 9501  
 cell division 1912  
 cell, size 1912  
 chemicals, as plant constituents  
 lipids 10297  
 protein 10297  
 starch 10297  
 chemicals, fertility and sex, effects, cuprenil 7995  
 chromosome, number 2900  
 chromosome translocation 126, 132, 1886, 5864  
 chromosomes, aberrations 5856  
 chromosomes, accessory 10415  
 chromosomes, addition and substitution 132  
 chromosomes, elimination 8777, 9501  
 chromosomes, morphology 4003  
 chromosomes, number 2900, 7995, 8777, 9501  
*Claviceps*, physiological races 7955  
 combining ability  
*Claviceps* 7955  
 height 8778  
 crossing over 1887  
 cytoplasmic inheritance 1912  
 embryo 10297  
 embryo culture 2911  
 fertilization, sexual 5856  
 gene dosage 8778  
 gene location 199, 3001  
 genetics  
 asynapsis 7919  
*Erysiphe* 199  
 meiosis 7919  
 sterility and fertility 9452  
 genome analysis 6923  
 germination 2900  
 haploidy 10301  
 height 8778  
 humidity 6919  
 hybridization, intergeneric 121, 126, 132, 199, 230, 1886, 1887, 1912, 2850, 2900, 2911, 3001, 3912, 4003, 5810, 5855, 5856, 5864, 5943, 6919, 6923, 7955, 7995, 8777, 8778, 9424, 9452, 9501, 9513, 10296, 10297, 10301, 10415  
 meiosis 132, 1887, 2900, 5943, 9513, 10296  
 pollen 9424  
 pollen, technique 5810  
 polyploidy 5810, 9424, 10301  
 root 1912



**Secale** × **Triticum** *contd.*

sterility and fertility 121, 230, 6919, 9452

sterility, self 9501

**Secale** × **Triticum**, **triticale**

aneuploidy 3986, 6997, 7978, 8776

anther 13

anther culture 221, 3988, 3989, 5947, 8695

asynapsis 7919

awns, size 221

back crossing 5939, 5942, 5944, 5946, 10398

breeding

Bulgaria, review 211

Czechoslovakia 5949, 7976

Hungary 1877

Mexico 9497

review 1874

Sweden 6989

Switzerland 2990

Ukrainian SSR 213

USSR 43, 1727, 1891

breeding, technique 5941

cell division 1048

cell, size 10396

centromere 7981

chemicals, as nutrients

copper 3000

nitrate 10250

zinc 3000

chemicals, as plant constituents

aminoacids 5952

 $\alpha$ -amylase 6989

chlorophyll 3989

cystine 5952

enzymes 7003

gliadin 222

glutamic acid 5952

gluten 212, 2948

heterochromatin 1108, 7978, 9383

lysine 217, 223, 4879, 5952, 7985, 9502

methionine 5952

nitrate reductase 3981

nitrogen 7003

nucleic acids 7978, 8729

phytase 1894

prolamin 7002

proline 5952

protein 217, 223, 1880, 1893, 2948, 5952, 5953, 7003, 7984, 7985, 9502

protein, technique 76

resorcinols 5950

serine 5952

threonine 5952

trypsin inhibitor 10397

chemicals, cytological effects

actinomycin D 58

aminoacids 58

colchicine 58

mitomycin C 58

*N*-nitroso-*N*-ethylurea 7977*N*-nitroso-*N*-methylurea 7977chemicals, fertility and sex, effects, *N*-nitroso-*N*-ethylurea 7001

chemicals, general effects

aluminium 1115, 1890, 5836, 7869

chlormequat 5811

2,4-D 6999

kinetin 6999

chemicals, mutagenic effects

1,4-bisdiazoacetylbutane 2995

diethyl sulphate 2995

dimethyl sulphate 2995

ethyleneimine 2995

*N*-nitroso-*N*-ethylurea 2995, 7977*N*-nitroso-*N*-methylurea 7977

chloroplasts 3990

chromosome translocation 1787, 7979, 7980, 7981

chromosomes, aberrations 1108, 3985, 7977, 10395

chromosomes, addition and substitution

215, 218, 1787, 3981, 7978

chromosomes, elimination 219, 1882, 1885, 2997, 7976

chromosomes, morphology 219, 220, 6993

chromosomes, morphology, technique

1703, 5945

chromosomes, number 3983, 6993, 8776, 9502

**Secale** × **Triticum**, **triticale** *contd.**Cochliobolus* 2851

cold resistance 1845, 2990, 3980, 8781

combining ability 1881

crossing over 7980, 7981

cytoplasm 13

cytoplasmic inheritance 4922

density of stand 223

development and growth 1845

diallel analysis 1881

digestibility 7984

dormancy 2990, 5948, 6989

embryo culture 217, 1895, 3982, 6999

endosperm 1108

*Ephestia* 5954*Erysiphe* 5949, 6991*Eurygaster* 10400

flowering 7001

forage 7984

fungi 1877, 2991

 $\gamma$  rays 222

gene dosage 5940

gene interaction 2992

genetic variance, trypsin inhibitor 10397

genetics, symposium 1876

genome analysis 6993

genotype × environmental interaction

1889

grain shrivelling 9383

review 1108

growth period 1881, 2991

gynecium 13

habit 221

hairs 221

haploidy 221, 3980, 5947

*Haplothrips* 10400

heat and drought resistance 3001, 5813, 7871

height 212, 221, 1877, 1881, 1892, 2998, 2999, 3980, 4922, 4923, 5939, 5942, 5949, 6989, 7977

heritability 1893, 2999, 7000

trypsin inhibitor 10397

heterosis 1048, 5940, 5950

history and evolution 7851

hybrid necrosis 5942

hybridization, intergeneric 13, 43, 58, 74, 76, 118, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 1042, 1048, 1108, 1115, 1727, 1753, 1787, 1845, 1875, 1876, 1877, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 2850, 2851, 2948, 2990, 2991, 2992, 2993, 2994, 2995, 2996, 2997, 2998, 2999, 3000, 3001, 3883, 3980, 3981, 3982, 3983, 3984, 3985, 3986, 3987, 3988, 3989, 3990, 4830, 4879, 4920, 4921, 4922, 4923, 5809, 5811, 5813, 5836, 5939, 5940, 5941, 5942, 5943, 5944, 5945, 5946, 5947, 5948, 5949, 5950, 5951, 5952, 5953, 5954, 6881, 6989, 6990, 6991, 6992, 6993, 6994, 6995, 6996, 6997, 6998, 6999, 7000, 7001, 7002, 7003, 7004, 7851, 7871, 7919, 7976, 7977, 7978, 7979, 7980, 7982, 7983, 7984, 7985, 8695, 8703, 8707, 8774, 8775, 8776, 8777, 8779, 8781, 9383, 9407, 9497, 9498, 9499, 9500, 10395, 10396, 10397, 10398, 10399, 10400

review 1874

inbreeding 6995

inflorescence, shape 221, 222

inflorescence, size 1892

irrigation 1753, 1892

laser beams 10396

*Lasioderma* 5954

leaf, shape 222

leaf, size 221, 1753

light, effect of 3989

lodging 5949, 7977

maternal effects, nucleic acids 8729

*Mayetiola*, physiological races, USA

4830

meiosis 58, 222, 1882, 1888, 2994, 2996, 2997, 3985, 3986, 4921, 5941, 5943, 5944, 6994, 6995, 7866, 7919, 7980, 10395

molecular genetics 8729

multivariate analysis 6992

mutation, induced 222, 2995, 7977

**Secale** × **Triticum**, **triticale** *contd.*

nucleolus, size 10396

nucleus 7866

nucleus, size 10396

ovule, size 5809

photoperiodism 1883, 1884

photosynthesis 3001

pollen 5944

pollen, size, technique 6881

pollination 1879

polyploidy 2994, 3000, 3982, 5939, 5940, 5941, 5942, 5946, 6881, 6989, 7977, 9407

review 7851

*Puccinia* 2851, 5949, 6991

physiological races

Canada 5821

India 7004

*Pyrenophora* 2851

quality, for milling and baking 212, 1893, 2851, 6991, 7002, 7003, 7985

quality, for nutrition 5949, 5953, 7984

quality, for storage 2948

recombination 58, 74, 215, 216, 218

*Rhopalosiphum* 10400, 10401

root, size 1890

salinity 8780

*Schizaphis* 10401

seed, number 217, 3883, 7983

seed, size 1880, 5951

seed, texture 217, 6989

seed, weight 1880, 1892, 4923

*Septoria* 2851*Sitobion* 10401

sowing and planting date 10395

spikelets, number 1753, 7983

spring and winter habit 1880

stability 1753, 1889

stem, shape 222

sterility and fertility 220, 1879, 2991, 2993, 3982, 3985, 4921, 5939, 5941, 5942, 5944, 6997, 7001, 8775, 8776

sterility, male 5939

review 1878

sterility, self 10399

temperature, effect of 3989

tillering 217, 221, 1889, 4923

*Tilletia* 8707

toxic soils 1890, 5836, 7869

*Tribolium* 5954*Ustilago* 8703

varieties

USA 214

USSR 4920

varieties, classification 76

variety trials

Albania 8774

Brazil 5836, 6991

Georgian SSR 9499

Philippines 9498

USA 1042, 1875

Venezuela 9500

viruses 2851, 8703

water balance 1753, 3001, 5813, 7871

yield components 222, 223, 1048, 1880, 1881, 1889, 1892, 1893, 1896, 2992, 4922, 4923, 5940, 6992, 6996, 6998, 7000, 7977, 7982, 8779, 10398

**Secale** × **Triticum**, **triticale** × **Hordeum**

embryo culture 2889

hybridization, intergeneric 2889

**Seed***Amaranthus* 2661, 6199*Arachis* 6459*Astragalus* 6242*Atylosia* 6819*Atylosia* × *Cajanus* 2797*Avena* 7007*Brassica*, cabbage 5583*Brassica*, red cabbage 5583*Cajanus* 6819*Carthamus* 4477*Cenchrus* 2199

cereals 80

*Cicer* 2747, 3786, 10183

Cucurbitaceae 5600

*Glycine* 1592, 3768, 6762, 11142, 11155*Gossypium* 549, 4367, 6346*Hordeum* 1158, 1163, 1166*Hordeum* × *Secale* 8112*Juglans* 2556*Lolium* 9732*Lycopersicon* 2643



**Seed contd.**

- Medicago* 6242  
*Onobrychis* 6242  
*Oryza* 5130, 6155, 8903, 10608  
*Phaseolus* 4689  
*Pinus* 6584, 9195  
 book 3637  
*Pisum* 982, 6781, 6782, 7788  
*Poncirus* 726  
*Sorghum* 8138, 10580  
*Trifolium*, minor species 4297  
*Trifolium*, subterranean clover 4297  
*Trigonella* 6242  
*Triticum* 1713, 2919, 5848  
*Vaccinium* 3596  
*Vicia*, broad bean 941  
*Vigna*, cowpea 1637  
*Vigna*, minor species 8596  
*Zea*, maize 5998, 6007, 6008, 8807, 10450, 10509

**Seed, anatomy**

- Hordeum* 9613  
*Sorghum* 3141  
*Vigna*, cowpea 1575, 9408  
*Zea*, maize 9564

**Seed, anatomy, technique, Zea, maize 6023****Seed, colour**

- Arachis* 4483, 5391, 5394, 9076  
*Atylosia* × *Cajanus* 2797  
*Brassica*, oil crops 1399, 8362, 9881, 10811  
*Brassica*, rape 4460, 4465, 6433  
*Cajanus* 4760, 11191  
*Cicer* 2747, 4667, 4756, 11188  
*Cyamopsis* 10680  
*Eleusine* 330, 10566  
*Glycine* 1586, 8599  
*Hordeum* 4077, 5061, 6068, 8077  
*Lablab* 8650  
*Lathyrus* 8961  
*Lens* 5712  
*Lycopersicon* 1552  
*Medicago* 2222  
*Oryza* 358, 3176, 4201, 6161, 8923  
*Panicum* 323, 8873  
*Phaseolus* 4685, 6714, 7745, 8575, 10098, 10100, 11091  
*Pinus* 3637, 4590, 9196  
*Pisum* 5706, 10171, 10179  
*Psophocarpus* 8632, 8636  
*Raphanus* 3654  
*Ricinus* 4468  
*Secale* 235  
*Sorghum* 1189, 2794, 4130, 7139, 7151, 8143, 8882  
*Triticum* 142, 148, 1077, 1754, 1814, 7889, 8736, 9448  
*Vicia*, broad bean 939, 3728, 3732  
*Vigna*, cowpea 9408, 10118  
*Vigna*, minor species 3743, 7757  
*Zea*, maize 265, 1932, 1936, 3053, 4028, 5993, 6001, 9543, 10441

**Seed, length**

- Citrullus* 11013  
*Hordeum* 8838

**Seed, moisture**

- Hordeum* 3122, 8102, 10540  
*Lolium* 9732  
*Morus* 9974  
*Oryza* 2162, 8907  
*Vigna*, cowpea 1575  
*Zea*, maize 270, 1929, 4008, 4997, 6047, 9564, 10472

**Seed, number**

- Aegilops* × *Triticum* 1067  
*Agropyron* × *Triticum* 122  
*Brassica*, oil crops 3452  
*Brassica*, rape 6432  
*Cicer* 9331, 10182  
*Cucumis*, cucumber 7691  
*Festuca* × *Lolium* 4262  
*Glycine* 10140  
*Gossypium* 543, 6349, 9816  
*Hordeum* 1035, 3131, 3883, 4093  
*Ipomoea* 521  
*Lablab* 2759, 10185  
*Lathyrus* 9764  
*Lotus* 473  
*Lupinus* 4306  
*Medicago* 2221  
*Morus* 9974  
*Oryza* 1228, 2131  
*Phaseolus* 5659

**Seed, number contd.**

- Pisum* 3777, 3778, 3779, 7780, 9325  
*Psophocarpus* 8633, 8643, 8644  
*Ribes*, gooseberry 671  
*Secale* 1914, 3883, 8005  
*Secale* × *Triticum*, triticales 217, 3883, 7983  
*Sorghum* 3142, 4139, 4144  
*Trifolium*, minor species 4297  
*Trifolium*, subterranean clover 4297, 4298  
*Trifolium*, white clover 5231  
*Triticum* 81, 156, 157, 1714, 1756, 2885, 2922, 2924, 3883, 3889, 3938, 5869, 6888, 6921, 6947, 6948, 9465, 10316, 10320  
*Vaccinium* 3594, 3595  
*Vicia*, broad bean 2670, 2676, 6688  
*Vigna*, minor species 10123  
*Vitis* 8445  
*Zea*, maize 5001

**Seed production**

- Allium*, onion 848, 2603  
*Andropogon* 10646  
*Beta*, fodder beet 6874  
*Beta*, sugar beet 6874, 9029, 9842  
*Brassica*, rape 1401, 5569, 9052  
*Brassica*, rape × *Brassica*, swede 1401, 5569  
 cereals 6874  
*Cocos* 1468  
 crop plants 39, 51  
*Cucumis*, cucumber 7690  
*Cynara*, globe artichoke 2593  
*Dactylis* 5156  
*Fagopyrum* 9715  
*Festuca* 7259, 10643  
 grasses 6874  
*Helianthus*, sunflower 7490  
*Hordeum* 5050, 7079  
*Lolium* 5156  
*Lotus* 2244, 7273  
*Lupinus* 7273  
*Lycopersicon* 4645, 4647, 5628  
*Medicago* 445, 447, 1263, 1269, 2215, 2217, 2221, 3255, 4278, 9747  
*Morus* 9138  
*Nicotiana* 4435  
*Onobrychis* 1288  
*Phaseolus* 10110  
*Picea* 4593  
*Poa* 2188  
*Psophocarpus* 6802  
 pulses 6874  
*Saccharum* 4405  
*Setaria* 10557  
*Sorghum* 5081, 5082, 8881  
*Trifolium*, minor species 9756  
*Trifolium*, red clover 1280, 2234, 3284, 4293, 5228, 7292, 9754, 9755  
*Trifolium*, white clover 7273  
*Triticum* 1744, 3920  
*Vigna*, minor species 10125

**Seed production, technique, Medicago 5208****Seed, shape**

- Cajanus* 11191  
*Fagopyrum* 6196  
*Hordeum* 8080, 8088  
*Oryza* 358, 1214, 2128, 2141, 3175, 4192, 5125, 5129, 6159, 6161, 6165, 7198, 8905  
*Panicum* 8873  
*Phaseolus* 4685, 6714  
*Pisum* 980, 3839, 10171  
*Sorghum* 5077  
*Triticum* 128, 2944, 4873, 6916, 9448

**Seed, size**

- Agropyron* × *Triticum* 122  
*Arachis* 7514  
*Bromus* 10630  
*Cajanus* 1565, 4761  
*Carum* 8654  
*Cicer* 2746, 5708, 9331  
*Clitoria* 1565  
*Cucumis*, cucumber 7692  
*Euchlaena* × *Zea*, maize 9545  
*Festuca* 9736  
*Glycine* 1590, 2721, 2726, 3752, 3770, 8606, 11151  
*Gossypium* 3357, 3365  
*Hibiscus* 7403  
*Hordeum* 1031, 1709, 2052, 3088, 8123, 9601, 9610

**Seed, size contd.**

- Lablab* 2761  
*Lactuca* 3687  
*Lens* 7796  
*Lotus* 4309, 9761  
*Malus* × *Pyrus* 681  
*Oryza* 376, 1213, 1216, 1218, 1224, 2846, 3158, 3170, 3175, 3181, 4192, 4211, 5115, 5127, 6159, 6161, 8154, 8158, 9652, 9667, 9689  
*Panicum* 4107  
*Pennisetum* 5065  
*Phaseolus* 2688, 4685  
*Pinus* 9196  
*Pisum* 3839, 10173  
 pulses 1565  
*Punica* 2537  
*Secale* 8005, 9516  
*Secale* × *Triticum*, triticales 1880, 5951  
*Sorghum* 2093, 2794, 3142, 4145, 8143  
*Triticum* 1752, 1756, 1792, 1856, 2934, 4880, 4900, 5875, 6896, 6917, 6956, 7904, 9448  
*Vaccinium* 3595, 8428  
*Vicia*, broad bean 7736  
*Vigna*, cowpea 1565, 1637, 9298  
*Vigna*, minor species 1565, 10121  
*Zea*, maize 4008, 4046, 5993, 8029, 8799, 9564  
*Zea*, sweet corn 8066  
*Zizania* 4233

**Seed storage**

- Brassica*, review 862  
*Camellia* 7478  
 crop plants 10230  
*Glycine* 4735, 10147, 11164  
*Gossypium* 1341  
*Hordeum* 8102  
*Malus* 9930, 9931  
*Medicago* 3244  
*Oryza* 2157, 2162, 8907  
*Panicum* 321  
 vegetable crops 1519  
*Zea*, maize 9574

**Seed storage, technique, Glycine 9309****Seed, technique, Helianthus, sunflower 5384****Seed, texture**

- Cicer* 4756  
*Hordeum* 2033  
*Oryza* 2152, 2833, 2835, 3181  
*Phaseolus* 7745  
*Pisum* 10172  
*Psophocarpus* 8636  
*Punica* 9999  
*Secale* × *Triticum*, triticales 217  
*Triticum* 2883  
*Vigna*, cowpea 9298  
*Vigna*, minor species 6746  
*Zea*, maize 2833, 10436, 10482, 10494

**Seed, variegation**

- Arachis* 5394  
*Phaseolus* 4685  
*Zea*, maize 10449

**Seed, weight**

- Aegilops* 1746  
*Avena* 5962, 5964, 10384  
*Brassica*, oil crops 3452, 10811  
*Brassica*, rape 3668  
*Cajanus* 4761  
*Cicer* 6792, 9331  
*Cucumis*, cucumber 7691  
*Euchlaena* × *Zea*, maize 9545  
*Fagopyrum* 5149  
*Fagus* 5522, 8464  
*Glycine* 1590, 4727, 5682, 5683, 7768, 10140  
*Gossypium* 543  
*Helianthus*, sunflower 5378, 6447  
*Hordeum* 2048, 2049, 2051, 3106, 3108, 4093, 4094, 5041, 5056, 6080, 7102, 7109, 8838, 8862, 9610, 10552  
*Lablab* 989, 2761  
*Lactuca* 3687  
*Lathyrus* 9764  
*Linum* 3378  
*Lolium* 425  
*Lupinus* 471, 4306  
*Medicago* 2222  
*Morus* 9138, 9974  
*Oryza* 364, 1213, 2107, 3181, 5115, 5130, 6155, 6161, 6171, 9689  
*Panicum* 3132



**Seed, weight contd.**

- Phaseolus* 6715  
*Pinus* 3637  
*Pisum* 1599, 2742  
*Prunus*, apricot 9115  
*Pseudotsuga* 8491  
*Psophocarpus* 8632, 8636  
*Ricinus* 9061  
*Secale* 1914, 3019, 4943, 7994, 8005  
*Secale* × *Triticum*, triticale 1880, 1892, 4923  
*Sorghum* 335, 2089, 2093, 3142, 4139, 4145, 7148, 9644  
*Trifolium*, red clover 4277, 7292  
*Trifolium*, white clover 5231  
*Triticum* 79, 85, 1098, 1714, 1746, 1752, 1792, 1806, 1856, 2885, 2931, 3935, 3939, 3966, 3970, 3976, 4872, 4881, 4913, 5828, 5874, 5875, 5920, 6892, 6928, 6948, 7904, 8754, 9431, 9465, 9467, 9478, 10257, 10313, 10316  
*Vaccinium* 8428  
*Vicia*, broad bean 937, 2670, 2676, 6683, 6688  
*Vicia*, vetch 465  
*Vigna*, cowpea 9301  
*Vigna*, minor species 1644, 10123  
*Vitis* 8445  
*Zea*, maize 270, 1032, 1037, 1929, 1944, 3046, 4046, 4056, 4057, 5001, 6022, 10425, 10471, 10472

**Seedlessness**

- Ananas* 2467  
*Citrullus* 2467  
*Citrus*, grapefruit × *Citrus*, pomelo 9133  
*Citrus*, lemon 9406, 9953  
*Citrus*, mandarin 2467, 2509  
*Citrus*, orange 2467, 9406, 9953  
*Lycopersicon* 4646, 6652  
*Musa* 2467  
*Punica* 2467  
*Syzygium* 1484  
*Vitis* 2467

**Seedlings**

- Agropyron* × *Triticum* 1776  
*Avena* 3008, 10248  
*Beta*, sugar beet 2345, 2346  
*Betula* 9185  
*Brassica* 865  
*Camellia* 9046  
*Citrus*, grapefruit × *Poncirus* 717  
*Citrus*, mandarin × *Poncirus* 717  
*Citrus*, pomelo × *Poncirus* 717  
*Cocos* 2516, 10895  
*Desmodium* 5241  
*Glycine* 2721, 2726, 6759  
*Gossypium* 3371, 9808  
*Helianthus*, sunflower 6450  
*Hordeum* 1165, 6085, 10248  
*Leucaena* 9188  
*Lotus* 5237  
*Lupinus* 4306  
*Oryza* 1219, 2140, 5127, 6154, 8168, 8179  
*Phaseolus* 5654  
*Poa* 8232, 8233  
*Prunus*, apricot 9115  
*Quercus* 9175, 10024  
*Saccharum* 5320  
*Secale* 6975, 10248  
*Trifolium*, white clover 5231  
*Triticum* 1776, 2928, 3921, 4871, 6975, 10248  
*Zea*, maize 246, 3046, 4037, 4973, 4986, 4990, 5003, 8817

**Seedlings, colour**

- Brassica*, oil crops 633  
*Cicer* 2747  
*Citrullus* 11014  
*Fagopyrum* 4229  
*Glycine* 8600  
*Lens* 2755  
*Vigna*, minor species 7757  
*Zea*, maize 7034, 10466

**Seedlings, size**

- Fagus* 8464  
*Helianthus*, sunflower 4474  
*Hordeum* 4094

**Seedlings, weight**

- Sorghum* 335  
*Triticum* 5886  
*Zea*, maize 4046

**Segregation, mitotic (see Mitotic recombination)**

- Selection** 2, 2775, 2838, 3807, 5723, 5729, 5731, 5737, 6826, 7806, 8658, 9343, 10201  
**Selection, artificial** 3814, 4800, 4801, 5727, 5768, 6827, 7812, 7813  
*Allium*, garlic 7663  
*Allium*, onion 2603  
*Arachis* 7503  
*Avena* 5961, 7006  
*Brassica*, oil crops 3452  
*Brassica*, rape 3668, 8363  
*Capsicum* 2586, 10840  
cereals 5799  
*Cicer* 985, 5708  
*Cocos* 2516, 10895  
*Coffea* 6425  
crop plants 42, 46, 1020, 3848, 5049, 5792, 6852, 6860, 9397, 9398, 9402  
*Daucus* 8502  
*Digitalis* 9913  
forest trees 9173  
*Glycine* 3753, 5682, 6749, 6750, 7760, 10128, 11137  
*Gossypium* 4368, 5293, 5294, 6341, 6352, 9804, 9805  
*Helianthus*, sunflower 9066  
*Hevea* 8382  
*Hordeum* 2019, 2020, 3088, 4104, 5049, 8067, 9616  
*Ipomoea* 521  
*Lablab* 10185  
*Lens* 9335, 11189  
*Linum* 4395  
*Lolium* 1249, 4259, 4260, 10633  
*Lotus* 4307, 4308, 4309, 5237  
*Malus* 3504  
*Medicago* 7285, 7289, 8954  
*Nicotiana* 2376, 5347, 7431  
*Oryza* 4186, 6151, 6172, 6173  
*Paspalum* 3209  
*Pennisetum* 3209  
*Picea* 1514, 7645  
*Pinus* 7642, 9189  
*Setaria* 10557  
*Solanum*, potato 2254, 4328, 8276, 8966  
*Sorghum* 4116, 4128, 8130, 8877  
*Trifolium*, minor species 3209  
*Trifolium*, red clover 461, 2232  
*Triticum* 96, 1052, 1731, 2866, 3889, 3893, 3894, 5875, 8714, 10269, 10277, 10331  
*Vicia*, broad bean 6682  
*Vigna*, cowpea 4697  
*Vigna*, minor species 11114  
*Vitis* 8437, 10930  
*Zea*, maize 1040, 1137, 1933, 1934, 1936, 1937, 1949, 1998, 2000, 3024, 4010, 4011, 4062, 4949, 5981, 7020, 7021, 7022, 7026, 7037, 7072, 8013, 8014, 8057, 10423, 10425, 10426, 10476, 10499  
**Selection, natural** 24, 999, 2789, 2836, 3808, 3814, 5732, 5753, 5754  
*Abies* 4596  
*Avena* 4932, 8783  
*Beta*, sugar beet 66  
*Gossypium* 4368  
*Hordeum* 6, 66, 1699, 6068, 6069  
*Lens* 11189  
*Lupinus* 6, 66  
*Trifolium*, white clover 7297  
*Triticum* 1699, 5875, 7935  
**Self sterility (see Sterility, self)**  
**Sepal (see Calyx)**  
**Septoria (see also Leptosphaeria;**  
*Mycosphaerella)*  
*Apium* × *Petroselinum* 8523, 11002  
*Avena* 5820  
*Digitalis* 9912, 9914  
*Glycine* 9320, 11168  
*Hordeum* 5820  
*Lycopersicon* 920, 2639, 4656  
*Secale* × *Triticum*, triticale 2851  
*Triticum* 1102, 1850, 3877, 3964, 4891, 5820, 7884, 8710, 10366  
*Vigna*, cowpea 1637  
**Serradella (see Ornithopus)**  
**Sesame (see Sesamum)**  
**Sesamia**  
*Eleusine* 6119  
*Oryza* 8674

**Sesamia contd.**

- Zea*, maize 1631  
**Sesamum**  
andrecium, anatomy 6849  
anther 1015  
chemicals, as plant constituents  
carbohydrates 9064  
histone 9064  
nucleic acids 9064  
oil, fatty 635, 8366  
protein 9064  
starch 8668  
chemicals, fertility and sex, effects  
2,3-dichloroisobutyrate, sodium 9064  
maleic hydrazide 9064  
combining ability 5375  
diallel analysis 5375  
fasciation 4469  
fruit, size 10816  
*Fusarium* 7487  
γ rays 4469, 6441, 8366, 10816  
genetics, fruit, size 10816  
growth period 6441, 10817  
hairs 6441  
height 6441  
heritability 5375  
heterosis 2408, 4469, 5375  
mutation, induced 4469, 6441, 8366  
fruit, size 10816  
outcrossing 2409  
sterility, male 1015, 6849, 8668, 9064  
sterility, male, cytoplasmic 8668  
varieties  
India 8365  
S. Korea 635  
variety trials  
Nigeria 9063  
USSR 630  
vascular tissue 1015  
yield components 2408, 4469, 5376, 10817  
**Setaria**  
breeding 10557  
chemicals, as plant constituents  
α-amylase inhibitor 6112  
calcium 2063  
iron 2063  
phosphorus 2063  
protein 2063  
cold resistance 3212  
digestibility 10557  
germplasm banks, India 7121  
habit 10557  
inflorescence, number 10557  
quality, for nutrition 5720  
seed production 10557  
selection, artificial 10557  
tillering 10557  
variety trials, New Zealand 414  
*Xanthomonas* 9629  
**Setosphaeria**  
cereals, physiological races 8705  
genetics, cereals 8705  
*Sorghum* 4157  
*Tripsacum* × *Zea*, maize 4019  
*Zea*, maize 241, 1137, 1138, 3029, 3074, 4034, 6056, 6059, 8021, 8830  
physiological races  
review 1922  
USA 4066, 5007  
*Zea*, sweet corn, physiological races 5020  
**Setosphaeria, technique, Zea, maize** 4065  
**Sex** 6846, 11025  
*Actinidia* 2536  
*Asparagus* 3838, 5564, 7666  
*Cannabis* 1355, 4399, 9831, 10734  
*Carica* 1469  
*Cenchrus* 7267  
*Citrullus* 8530, 10067  
*Cocos* 9977  
*Coriandrum* 11199  
*Cucumis*, cucumber 884, 885, 1550, 2629, 3699, 3700, 4633, 4634, 5610, 5611, 6643, 6644, 7685, 7689, 7690, 8532, 8535, 9253, 10067, 10977, 11025, 11027  
*Cucumis*, melon 2622, 7681, 11008  
*Cucurbita* 879, 880, 1548, 2590, 2626, 10067  
Cucurbitaceae 5600  
cucurbits 10067  
*Elaeis* 2431  
*Hibiscus* 10743



**Sex contd.**

- Laminaria* 4771
- Morus* 730, 733, 2511, 7569
- Phoenix* 4542
- Picea* 4593
- Pinus* 8481
- Piper* 9086
- Populus* 1503, 3626
- Ricinus* 1407, 1408, 2405
- Rubus*, raspberry 10912
- Salvia* 9341
- Vitis* 2552, 3611, 4569, 7613, 8441
- Zea*, maize 1124, 1959

**Sexual reproduction** 10206

- Camellia* 1386, 9870, 10217
- cereals, review 10626
- Festuca* 9735
- grasses, review 10626
- Paspalum* 6228
- Pennisetum* 10560
- Poa* 2186, 8232, 8233
- Puccinia* 4904

**Shaddock** (see *Citrus*, pomelo)**Shade**

- Festuca* 7263
- Nicotiana* 619
- Oryza* 2129
- Piper* 2450
- Triticum* 165

**Shallot** (see *Allium*, shallot)**Shattering** (see *Shedding*)**Shedding**

- Avena* 5959
- Cuphea* 4491
- Glycine* 3746, 10136
- Hordeum* 3090, 4102
- Lupinus* 3293, 6272, 6273, 7304, 8268
- Oryza* 6148, 9686
- Pisum* 979, 7788, 8618
- Prunus*, apricot 701, 9116
- Psophocarpus* 6804
- Triticum* 9445
- Vicia*, broad bean 3727, 4671
- Vigna*, minor species 10125
- Vitis* 5497, 9101

**Silage**

- Dactylis* 3210
- Euchlaena* × *Zea*, maize 245, 9545
- Hordeum* 2057
- Phleum* 3210
- Sorghum* 2079
- Trifolium*, red clover 10672
- Zea*, maize 269, 1119, 1126, 3028, 3059, 4029, 4030, 4031, 4951, 7030, 8016, 8017, 8055, 9521, 9586

**Silvering**, *Lycopersicon* 916, 1517**Sinapis**

- chemicals, as plant constituents
  - fatty acids 859
  - mucilage 4467
  - oil, fatty 859
  - sinapine, technique 10232
  - sterols 6617
- chromosomes, number 3824
- hairs 6439
- Heterodera*, technique 5578
- Phyllotreta* 6439
- taxonomy 6617

**Sipha**, *Sorghum* 8144**Sisal** (see *Agave*)**Sisymbrium**, chromosomes, number 3824**Sitanion** × *Agropyron*, hybridization, intergeneric 7269**Sitobion**

- Avena* 10258
- Hordeum* 1156, 2865
- Secale* × *Triticum*, triticales 10401
- Sorghum* 10257
- Triticum* 1098, 2865, 10257

**Sitobion**, technique, *Triticum* 5937**Sitona**, *Pisum* 983, 6788, 8620, 8621**Sitophilus**

- Hordeum* 5061
- Sorghum* 1196, 6131, 8144, 8145
- Triticum* 1840, 1872
- Zea*, maize 5016, 7071, 10503, 10505

**Sitophilus**, technique, *Zea*, maize 10509**Sitotroga**

- Oryza* 5145
- Sorghum* 8145
- Zea*, maize 5014

**Size**

- Brassica*, Brussels sprouts 3685

**Size contd.**

- Brassica*, cauliflower 3683
- Festuca* 8226
- Triticum* 3965

**Smoking quality** (see *Quality*, for smoking)**Snow mould, unspecified**

- Festuca* 6204
- grasses 6204
- Phleum* 6204
- Secale* 8788
- Triticum* 1841

**Sogatella**

- Oryza* 3168, 8155, 8195, 8216, 9706, 9709
- physiological races 8923

**Soil compaction**

- Triticum* 7949
- Vitis* 5502

**Soil moisture**

- Beta*, sugar beet 8326
- Cucumis*, melon 5604
- Glycine* 11165
- Hordeum* 5038
- Medicago* 8253, 10659
- Mentha* 11194
- Saccharum* 9022
- Salvia* 11194
- Vigna*, cowpea 9303

**Soil pH**

- Agrostis* 2184
- Brassica*, swede 6281
- Brassica*, turnip 6281
- cereals 10235
- Coronilla* 3300
- Festuca* 2184
- Glycine* 3764, 3864, 5676
- Gossypium* 10719
- Hordeum* 3089
- Linum* 3378, 9827
- Lotus* 4311, 5238
- Manihot* 4422, 6393
- Medicago* 3248, 3269, 9751, 9752
- Nicotiana* 10788
- Oryza* 1200, 2158, 6141, 8157, 8886
- Phaseolus* 10098
- pulses 10235
- Trifolium*, subterranean clover 5232
- Trifolium*, white clover 8266
- Triticum* 3864, 5905
- Vigna*, cowpea 11111
- Vitis* 5502

**Soil stabilization**

- Eragrostis* 6232
- Festuca* 4263, 5189
- Lepedeza* 10677
- Panicum* 6110

**Soil types**, *Pinus* 7640**Soja** (see *Glycine*)**Solanaceae**

- botany, book 995
- taxonomy, book 995

**Solanum** (see also *Lycopersicon*)

- aneuploidy 2456
- anther culture 7603
- breeding, India 1421
- chemicals, as plant constituents
  - alkaloids 662
  - phenols 928
  - protein 928
  - solasodine 1421
- chromosomes, morphology 11067
- chromosomes, number 765, 2457, 7848
- cold, effect of 7603
- fruit, number 662
- fruit, size 662, 2456
- fruit, weight 662
- γ rays 1422
- germplasm banks 7843
- grafting 823
- growth period 662
- heterosis 11067
- heterostyly 1422, 7728
- history and evolution 8288, 10847
- hybridization, interspecific 1483, 2456, 7599, 8288, 8564, 9998, 10845, 10847, 11067
- light, effect of 7603
- meiosis 2456, 2457, 7599, 7600, 9998, 10845
- mutation, induced 1421
- polyploidy 2457, 7599, 7600, 10845
- Pseudomonas* 6672
- recombination 823

**Solanum contd.**

- salinity 68
- spines 662, 1421
- sterility and fertility 765, 1483, 2456, 2457, 7599, 10845
- taxonomy 928, 10847
- review 765

**Solanum**, egg plant

- Alternaria* 6671
- anther 1015
- anther culture 653, 1562, 2659, 9284
- centres of origin or diversity 1561
- Cercospora* 6671
- chemicals, as plant constituents
  - phenols 928
  - protein 928
  - starch 8668
- chemicals, mutagenic effects
  - caffeine 11069
  - diethyl sulphate 11069
  - ethyl methanesulphonate 11069
- collar rot 38
- combining ability 1563
- cytoplasmic inheritance 926
- development, abnormal 5635
- diallel analysis 927, 1563, 2658
- embryo culture 4660
- flower 5635
- review 653
- flowering, review 653
- fruit, number 11069
- fruit, size 11069
- Fusarium* 2657, 4599, 6673
- genetic variance, fruit, length 11071
- genetics, *Fusarium* 6673
- germination 8565
- glass and plastic, cultivation under 925, 10085
- grafting 823
- growth period 2657, 2658, 9285
- haploidy 9284
- heat and drought resistance 8565
- height 2658, 9285
- heritability 927
  - fruit, length 11071
  - yield components 11070
- heterosis 6669, 8565
- heterostyly 7728
- hybrid varieties 10085
- hybridization 5635
- hybridization, interspecific 926, 1483, 1561, 2592, 2657, 4660, 6673, 7727, 8564, 8565, 11068
- Leucinodes* 929, 2657, 4660, 8565
- magnetism, effect of 1356
- meiosis 2657
- Meloidogyne* 829
- mutation, induced
  - fruit, number 11069
  - fruit, size 11069
- mycoplasmas 2657, 9286
- perennial habit 11068
- Phomopsis* 2657, 6671
- plant introduction, to Cuba 9214
- pollination 653
- polyploidy 926
- protoplasts 8566
- Pseudomonas* 4661, 6672, 11068
- recombination 823
- spines 6670
- sterility and fertility 926, 1483, 2657, 7727, 11068
- sterility, male 653, 1015, 8668
- sterility, male, cytoplasmic 8668
- taxonomy 928
- tissue culture 10086
- variety trials
  - Greece 10085
  - Netherlands 925
- vascular tissue 1015
- Verticillium* 2592
- viruses 2657, 2660, 6671, 6674
- yield components 927, 1563, 2658, 6669, 9285, 11070, 11071

**Solanum** × *Lycopersicon*, hybridization, intergeneric 898, 901, 902, 912, 7703, 7713, 8545, 10076**Solanum** - *Nicotiana*, protoplast fusion 7441**Solanum**, potato

- Agrotis* 9795
- Alternaria* 5258, 5259, 6311, 6327, 8982
- altitude 2264, 6322



*Solanum*, potato *contd.*

- aneuploidy 6303, 6314
- anther culture 4326, 5252, 7328, 8284, 9409
- aphids 9796
- apomixis 6310, 10690
- asynapsis 6310
- back crossing 4345
- black spot 6323
- breeding
  - Belorussian SSR 5256
  - book 1303
  - Canada 8275
  - Finland 7825
  - German Democratic Republic 4332, 5772
  - review 4325
  - German Federal Republic 4808
  - review 4325
  - Kazakh SSR 7314
  - Netherlands 4331
  - Norway 1011
  - review 2253
  - Sweden 1011
  - UK 4323, 9772
  - Ukrainian SSR 3310, 3311, 3312, 5247
  - USSR 43, 482, 1302, 1304, 2261, 4329, 5248
- breeding, technique 6284, 10692
- cell culture 2265, 9782
- chemicals, as nutrients
  - manures 8981
  - nitrogen 505, 1309, 4344, 8289, 8290, 8291, 8981, 9788
  - phosphorus 8290, 8291, 8292, 8981, 9788
  - potassium 1309, 8290, 8291, 8292, 8981, 9788
  - urea 2270
- chemicals, as plant constituents
  - alkaline phosphatase 7316
  - aminoacids 1309, 8980
  - arginine 1309
  - ascorbic acid 3316, 8291, 8292, 8976
  - carotenoids 495
  - chacatriose 7359
  - chaconine 7360
  - $\alpha$ -chaconine 5255, 7333
  - $\beta$ -chaconine 5255
  - chlorogenic acid 3323
  - chlorophyll 5252, 10237
  - commersonine 5255, 7360
  - dehydrocommersonine 7359, 7360
  - demissine 7333
  - flavonoids 1315
  - fructose 7332
  - fructose, technique 494
  - glucose 7332
  - glucose, technique 494
  - $\beta$ -glucosidase 2277
  - glutamic acid 1309
  - glycoalkaloids 517, 3332, 7359, 7360
  - glycoalkaloids, technique 2266, 4343
  - heterochromatin 2259
  - IAA decarboxylase 2276
  - lectins 1321, 6332, 10695
  - leptine 7359
  - lignin 6321
  - lipids 506
  - lubimin 5261
  - methionine 1309
  - nucleic acids 506
  - phenols 6306
  - phosphatase 2277
  - phosphoglucose isomerase 7316
  - phospholipids 506
  - phosphorus 6299
  - phytoalexins 2823
  - proline 9779
  - protein 496, 501, 506, 1306, 2267, 2823, 7330, 7333, 8282, 8291, 8292, 8967, 8979, 8980, 9784, 9785, 9788
  - ribulose 1,5-diphosphate carboxylase 6300
  - rishitin 5261
  - $\alpha$ -solamarine 7333
  - $\beta$ -solamarine 7333
  - solanine 503, 5255, 7360
  - $\alpha$ -solanine 7333
  - solatriose 7359

*Solanum*, potato *contd.*

- chemicals, as plant constituents *contd.*
  - starch 485, 500, 502, 2257, 3316, 3321, 4335, 5256, 7323, 8291, 8292, 8967, 8977, 8978, 8979, 9771, 9783, 9788
  - sucrose 1311, 7332, 8287
  - sucrose, technique 494
  - sugar 6306, 9784, 9785
  - sugar, technique 494
  - sugars, reducing 1311, 3318, 6306
  - sugars, reducing, technique 494
  - tomatine 7333
- chemicals, cytological effects, colchicine 8284
- chemicals, general effects
  - ABA 5261
  - aldicarb 5263, 8289
  - dalapon 4357
  - N,N'*-diacetylchitobiose 1321
  - disulfoton 8289
  - Fusarium* toxin 4354
  - galactosamine 6330
  - herbicides 513
  - mancozeb 10238
  - mannosamine 6330
  - methyl isothiocyanate 8289
  - metribuzin 7344
  - N*-nitroso-*N*-methylurea 8972
  - oxamyl 5263
  - TCA 4357
  - urea 2270
- chemicals, mutagenic effects
  - 1,4-bisdiazoacetylbutane 8979
  - N*-methyl-*N*-nitro-*N*-nitrosoguanidine 5252
  - N*-nitroso-*N*-dimethylurea 8979
  - N*-nitroso-*N*-methylurethane 5252
- chimeras 2262, 4788, 9777
- chromosomes, aberrations 4339
- chromosomes, morphology 2259, 4338
- Cladosporium* 5261
- cold, effect of 506, 6306
- cold resistance 506, 2256, 4345, 6322, 7333, 7334, 8293, 10693
- cold resistance, technique 10237
- Colletotrichum* 6328
- combining ability 492, 502, 2257, 3313, 4335, 4342, 7319, 7320, 7361, 7836, 9771
- specific gravity 10685
- tuber, number 9781, 10686
- tuber, weight 10686
- yield components 9781, 10685
- combining ability, technique 9776
- computer programming 6284
- cork 8974
- Corynebacterium* 508
- cuttings 5253
- cytoplasm 7334
- cytoplasmic inheritance 1314, 6298
- defoliation, artificial 3318
- development and growth 3316, 8279
- diploidy 493, 4339, 4789, 6304, 7835, 7836
- Ditylenchus* 7353, 8986, 9793
- dormancy 1310, 1311, 6312, 6315, 8283, 10691
- Empoasca* 517, 6336, 10700
- endosperm 6307
- environment 3316, 8973
- Erwinia* 508, 1317, 2271, 5258, 8295
- physiological races 10696
- Poland 507
- Erysiphe* 8982
- experimental designs 4346
- fertilization, sexual 2260
- flowering 6298
- foliage area 8285
- Fusarium* 511, 3323, 4354, 8295
- Fusarium*, technique 3325
- $\gamma$  rays 495, 498, 5252, 8975
- gene interaction 1640
- genetic resources 1649, 2252, 8274
- genetic variance 6331, 7319, 7361, 8283
- development and growth 8279
- growth period 8279
- height 8279
- specific gravity 8279
- tuber 8279
- yield components 10685
- genetics
  - alkaline phosphatase 7316

*Solanum*, potato *contd.*

- genetics *contd.*
  - $\alpha$ -chaconine 5255
  - $\beta$ -chaconine 5255
  - commersonine 5255
  - Globodera* 4359, 6334, 7358, 9772
  - habit 4337
  - hairs 499
  - meiosis 4339, 10688
  - phosphoglucose isomerase 7316
  - Phytophthora* 1321, 1696, 3328, 6332, 7342
  - Pseudomonas* 1640
  - solanine 5255
  - sterility and fertility 1308
  - sterility, male, cytoplasmic 6313
  - Synchytrium* 9792
  - tuber, number 4337
  - tuber, shape 4337, 5254
  - viruses 3333, 4360
- genome analysis 1307
- genotype  $\times$  environmental interaction 2255, 4351, 5249, 8279, 8282
- geographical races 499
- germplasm banks 7843
- German Federal Republic 1301, 4324
- Netherlands 1301, 4324
- Peru 2252
- Taiwan 1664, 3849
- Turkey 6285
- glands 10700
- Globodera* 489, 2275, 2276, 2277, 3321, 3332, 4359, 5263, 5795, 6334, 7321, 7345, 7346, 7351, 7354, 7355, 7356, 7357, 7358, 7836
- physiological races 3331, 7835, 9794
- Latvian SSR 2278
- Sweden 4358
- UK 9772
- Globodera*, technique 514, 515, 6333
- grafting 823
- growth period 2261, 3317, 3331, 6298, 6311, 7322, 7326, 8275, 8279, 8979
- habit 4337
- hairs 499, 5265, 9796, 10700
- haploidy 2260, 3314, 3316, 4326, 4327, 4339, 4354, 5251, 6298, 6302, 6308, 6313, 6314, 7319, 7324, 7329, 7331, 7836, 8284, 8972, 9385, 9409, 9778, 10685, 10690
- review 5781
- harvesting 2281
- harvesting, mechanical 4348
- heat and drought resistance 1640, 7335, 8294, 9779
- heat and drought resistance, technique 9790, 10237
- heat, effect of 9779
- height 8279
- Helminthosporium* 6328
- heritability 7331, 8283
- development and growth 8279
- growth period 8279
- height 8279
- specific gravity 8279
- tuber 8279
- tuber, number 9781
- yield components 9781, 10685
- heterosis 487, 7319
- yield components 10685
- heterozygosis 7318
- history and evolution 493, 1314, 2251, 2253, 2268, 2269, 4323, 7321, 7333, 7850, 8280
- homozygosis 4327, 8284
- hybridization 500, 2258, 3314, 3315, 3321, 6301, 10685
- hybridization, interspecific 488, 489, 490, 491, 492, 499, 501, 1307, 1308, 2263, 2268, 2269, 3320, 3332, 4336, 4337, 4345, 5268, 6307, 6313, 7316, 7321, 7322, 7323, 7324, 7336, 7338, 7343, 7345, 7358, 7363, 7836, 8280, 8293, 8297, 8684, 8977, 8979, 9772, 9791, 9794, 10687
- inbreeding 2811, 4345
- insects 5267
- internode, size 6311
- leaf, anatomy 2264
- leaf, shape 2262
- leaf, size 2264
- Leptinotarsa* 7359, 7360, 8297
- Leveillula* 8985



***Solanum*, potato contd.**

- light, effect of 10693
- maternal effects, heat and drought resistance 8294
- mechanical injury 4346, 4347, 4348, 4349, 4350, 4351, 4352, 4353, 6321, 7341, 8983
- mechanical injury, technique 3324, 9789
- meiosis 1307, 4327, 4339, 6304, 6310, 7836, 8282, 8971, 9385, 10687, 10688
- Meloidogyne* 7347, 7348, 7349, 7350, 7352
- mixtures of crops or genotypes 7850
- multiple alleles
  - alkaline phosphatase 7316
  - phosphoglucose isomerase 7316
- multiple genes 5254
- multivariate analysis 3314, 3315
- mutation 2262, 4337, 4339, 7333, 10237
  - tuber, colour 9777
- mutation, induced 4788, 5252
  - book 5250, 6866
  - protein 8979
- mycoplasmas 5267
- Myzus* 499, 516, 5265
  - physiological races 5264
- Myzus*, technique 516, 6335
- Nectria* 1317
- Nectria*, technique 509
- nematodes 491, 1323, 4334, 9793
- pathology 10692
- Phoma* 3323, 3324, 6321, 7835, 10698
- Phoma*, technique 3325, 4352
  - review 510
- photoperiodism 6298, 6311, 7326, 7327, 7362, 8294, 9779
- photosynthesis 8285
- Phytophthora* 489, 1320, 2273, 2274, 3320, 3321, 3327, 3329, 3330, 4333, 4336, 4355, 4356, 4794, 5258, 5260, 5261, 5795, 6311, 6327, 6331, 6332, 7341, 7342, 7343, 7825, 7835, 7836, 8295, 8297, 9771, 9772, 10238, 10693, 10699
  - physiological races 1321, 1322, 1696, 2823, 3328, 6329, 6330
  - Ukrainian SSR 512
  - review 2823, 5262
- plant introduction
  - from Netherlands 8277
  - to Brazil 8277
- plant introduction, technique 4330
- pollen 2260, 5251, 7836, 10687, 10688
- pollen, size 5251
- pollination 1312, 10690
- polyploidy 489, 493, 2260, 4327, 4338, 6302, 6305, 6307, 6313, 7324, 7333, 7850, 8280, 8282, 8293, 10687
- protoplast fusion 487, 4327, 6300, 8683
- protoplast fusion, technique 7317
- protoplasts 2265, 4789, 6311, 10689
- Pseudomonas* 1640, 3320, 6324, 7337, 7338
  - physiological races 7336, 9791, 10694, 10695
  - Peru 10697
- Pseudomonas*, technique 7336
- quality 6309
  - quality, for cooking 1313, 6305, 6318, 6328, 7313, 8278, 8286, 8975
  - quality, for cooking, technique 5785
  - quality, for food processing 3318, 6317, 6318, 6320, 6328, 7313, 8278, 8287, 9784, 9785, 10691, 10982
  - quality, for food processing, technique 5785
  - quality, for nutrition 2266
  - quality, for storage 3318, 6317, 6318, 8278, 8975, 10691
- recombination 823, 9771
- respiration 6306
- Rhizoctonia* 1319, 8295
- Rotylenchus* 6334
- Sclerotinia* 8982
- selection, artificial 2254, 4328, 8276, 8966
- sowing and planting date 6320
- specific gravity 6316, 7331, 8278, 8279, 8973, 10685, 10982
- Spongopora* 7340
- sterility and fertility 490, 491, 1308, 1312, 1314, 2258, 2263, 5251, 6298, 6301, 6308, 6314, 10685

***Solanum*, potato contd.**

- sterility, male 2258, 6301, 7324
  - sterility, male, cytoplasmic 1314, 6313
  - stomata 8285
  - storage of planting material 10691
  - Streptomyces* 6325, 6326, 7835, 8982
    - physiological races, Hungary 8296
  - Streptomyces*, technique 2272
  - succession, crop 1316
  - Synchytrium* 3321, 7313, 7835, 8984
    - physiological races 9792
    - German Democratic Republic 3326
  - taxonomy 504, 1315, 3319, 5257, 6319, 9787, 9796
  - temperature, effect of 495, 515, 2270, 6315, 7332, 7334, 9791, 10691
  - Tetranychus* 499
  - Thecaphora* 1318
  - Thrips* 499
  - tissue culture 497, 2265, 4330, 4354, 4789, 7317, 7329, 7334, 8284, 8298, 9778, 9782, 10689
  - true seed 7325
  - tuber 8279
  - tuber, colour 495, 7333, 9777, 9784, 9785
  - tuber, number 4337, 8275, 9780, 10686
  - tuber, shape 2262, 4337, 5254, 6311, 9785
  - tuber, size 503, 4341, 8275, 9773
  - tuber, weight 6309, 8282, 9780, 10686
  - variation 7333
  - varieties
    - Australia 6296, 6297
    - Austria 3854
    - Canada 6290, 6292, 6293
    - France 9775
    - German Federal Republic 4334
    - Irish Republic 486
    - Peru 8969
    - Rhodesia 2813
    - S. Korea 4333
    - Switzerland 1305
    - UK 6289, 7313, 8968
    - Ukrainian SSR 9774
    - USA 6291, 6294, 6295, 7315, 10684
  - varieties, classification 496, 1306
  - variety trials
    - Austria 4811
    - Bermuda 484
    - Brazil 8277
    - Canada 8278
    - Denmark 3840
    - India 8967, 9773
    - Norway 483
    - Pakistan 6286
    - UK 6287, 6289
    - USA 8278
    - USSR 2256
  - variety trials, technique 2255, 5249, 6288
  - Verticillium* 6290, 7339, 9882
  - viruses 485, 489, 491, 518, 520, 2279, 2280, 2281, 3321, 4333, 5258, 5265, 5266, 5268, 5270, 6338, 6339, 7313, 7361, 7362, 7835, 8298, 8982, 9772, 9797
    - physiological races 3333, 3334, 7363, 8987
    - Belorussian SSR 3335, 6337
    - Poland 519
  - viruses, technique 4360, 5269, 5270, 6340
  - water balance 9790
  - X rays 5252
  - yield components 4340, 7320, 8281, 8970, 9779, 9780, 10685
- Solanum*, potato - *Lycopersicon*, protoplast fusion 10237, 11042**
- Solubea*, *Sorghum* 8145**
- Somatic recombination (see Mitotic recombination)**
- Sorbus***
- chemicals, as plant constituents
    - flavone O-glycosides 668
    - vitexin 668
- Sorghastrum***
- chemicals, as plant constituents, protein 8248, 9743
  - chromosomes, number 6238
  - digestibility 4243, 8248, 9743
  - growth period 4243, 8248, 9743
  - height 4243
  - heritability 8248

***Sorghastrum* contd.**

- heritability contd.
    - digestibility 9743
    - growth period 9743
    - protein 9743
  - heritability, technique 4243
  - meiosis 6238
  - quality, for nutrition 8248, 9743
- Sorghum***
- Agelaius* 5083
  - Alternaria* 1193, 4160
  - aneuploidy 7137
  - anther culture 4141
  - apomixis 2091, 3147, 3149, 4148, 6125
  - Ascochyta* 7158, 7159
  - Aspergillus* 4160
  - Atherigona* 2794, 4156, 4169, 4170, 4174, 4175, 4177, 4178, 4179, 4180, 4181, 4183, 4184, 5072, 5088, 8144, 8145, 8885
  - awns 5077, 8882, 9641
  - back crossing 4136
  - birds 1194, 2096, 4158, 5083, 6120, 7151, 8148, 8884
  - Blissus* 8145, 10589
  - breeding
    - Australia, review 3140
    - Ethiopia 4113
    - India 1646, 4114
    - Niger 4119
    - Pakistan 7124
    - Taiwan 2076, 2077
    - USA 5069, 5070, 6121
    - USSR 4120
  - breeding, technique 8145
  - Calocoris* 2794, 8144
  - cell, size 333
  - Cercospora* 4157, 10585
  - chemicals, as nutrients
    - ammonium 9649
    - calcium 4815, 7149
    - iron 9649
    - magnesium 4815, 7149
    - nitrate 9649
    - nitrogen 339, 340, 4153, 4154, 4184, 6128, 7149, 7170, 8139
    - phosphorus 4184, 4815, 7149, 8139, 9649
    - potassium 3154, 4184, 7149
    - sulphur 7149
  - chemicals, as plant constituents
    - ABA 2087, 7156
    - acetaldehyde 3151
    - acids 4174
    - albumin 1036
    - aldehydes 4150
    - aminoacids 1018, 1029, 1030, 1190, 4174
    - $\alpha$ -amylase inhibitor 6112
    - $\alpha$ -amylase, technique 10246
    - amylopectin 3152
    - amylose 3151, 3152
    - ascorbic acid 336, 5074
    - carbohydrates 8137
    - $\beta$ -carotene 6120
    - carotenoids 7128
    - chlorophyll 2089, 4138, 4174, 5074, 7128
    - chromium 3152
    - cinnamyl alcohol : NADPH oxidoreductase 4150
    - copper 3152
    - cyanogenetic compounds 332, 1187, 4172, 4174, 6126, 7143, 7234, 8883
    - enzymes 336
    - fatty acids 3152
    - glutamate dehydrogenase 1036
    - glutamate oxaloacetate transaminase 1036
    - glutelin 5079
    - IAA 2087, 7156
    - IAA oxidase 336
    - iron 3152, 9649
    - isoleucine 1190
    - leucine 337, 1190
    - lignin 4150, 8136, 8880
    - lysine 1018, 1029, 1036, 1190, 2794, 4152, 5078, 7138, 7141, 7148, 8130, 8137, 9644, 9648
    - lysine, technique 1039, 2092
    - methionine 4152
    - nickel 3152
    - nitrate reductase 7133



**Sorghum contd.**

chemicals, as plant constituents *contd.*  
 nitrogen 7148  
 nitrogenase 2794  
 nucleic acids 7148  
 oil, fatty 5075, 8137  
 peroxidase 336  
 phaeic acid 7156  
 phenols 1189, 4172, 5083, 8704  
 phenols, technique 1189  
 phenylalanine 337  
 phosphorus 9649  
 potassium 3154  
 prolamin 1036, 7148  
 proline 3154  
 propanol 3151  
 protease 7148  
 protein 1018, 1030, 1036, 1190, 3152, 4145, 4151, 4152, 5075, 6120, 7138, 7141, 7147, 7148, 8130, 8135, 8137, 8140, 9644, 9648, 10570, 10580  
 protein, technique 1039, 2092  
 ribonuclease 7148  
 starch 1188, 3141, 3152  
 sugar 3152, 4174, 6127, 8878  
 tannin 2093, 2094, 2096, 3152, 3153, 4158, 5079, 5080, 7139, 7234, 8133, 8135, 8137, 8148, 8884, 10249, 10578, 10581  
 tannin, technique 2093  
 threonine 337, 1190  
 tryptophan 1018, 4152  
 tyrosine 337  
 valine 337, 1190  
 wax 1195, 4123, 4146, 6121  
 zinc 3152  
 chemicals, cytological effects, colchicine 5076  
 chemicals, general effects  
 ABA 4161  
 aluminium 4815, 8146  
 BA 2086  
 GA 2086, 4161  
 NAA 2086  
*Periconia* toxin 5085, 9651  
 chemicals, mutagenic effects  
 colchicine 5076  
 diethyl sulphate 9644  
 ethyl methanesulphonate 2089  
 hydrazine 4138  
*Chilo* 2794, 4156, 4172, 4175, 4176, 4179, 4180, 4181, 4183, 4184, 6132, 6133, 7174, 8144, 8145  
 chromosomes, aberrations 7137  
 climate 3150  
*Cochliobolus* 4160, 7157, 7160, 10582  
*Colletotrichum* 4125, 4157, 5069, 7128, 7152, 7153, 8132, 8146, 10568, 10586  
 physiological races 8151  
 colour 5077, 7137  
 combining ability 334, 2082, 2083, 2085, 2094, 4117, 4128, 4129, 4131, 4132, 4137, 4145, 5075, 7134, 7147, 8140, 9643  
*Cochliobolus* 10582  
 endosperm 9642  
 forage 10577  
 growth period 9642, 9645  
 height 9642, 9645  
 nitrate reductase 7133  
 tannin 10581  
 yield components 9645, 10577  
*Contarinia* 2102, 2794, 4173, 7176, 8132, 8144, 8145  
*Contarinia*, technique 8709  
*Cryptoblabes* 4160  
*Curvularia* 1193, 2794  
 density of stand 5071, 9650  
 development and growth 339, 340, 1036, 5076, 7156  
 diallel analysis 2088, 2094, 4128, 4129, 4131, 9642  
*Diatraea* 4173, 8145  
 digestibility 6127, 6201, 7147, 8136, 8137, 8140, 10578  
 digestibility, technique 7144, 7145, 7146  
 dormancy 7151, 8138  
*Drechslera* 4160  
 embryo, size 2093  
 embryo, weight 335  
 endosperm 1030, 3151, 8138, 9642  
 endosperm, texture 1188, 9644  
 environment 8137

**Sorghum contd.**

*Ephestia* 3155  
 epidermis 6201  
 epistasis 8133  
 experimental designs 7859  
 fertilization, sexual 6125  
 flowering 2087, 8881  
 review 62  
 foliage area 6123, 7136, 10575  
 forage 332, 2078, 3140, 4124, 4131, 4132, 4134, 6121, 6127, 7125, 7126, 7135, 7143, 7144, 7145, 7146, 8136, 8140, 10577, 10579, 10581  
 fungi 4165, 5086, 7158, 7159, 7160  
*Fusarium* 1193, 2794  
 $\gamma$  rays 2089, 3144, 4138, 4142  
 gene interaction 2090, 4146  
 genetic resources 7129, 7130  
 genetic variance 8137  
 forage 10577, 10579  
 growth period 10571  
 lodging 10571  
 nitrate reductase 7133  
 protein 10570  
 yield components 9646, 10571, 10577, 10579  
 genetics  
 awns 5077, 8882  
*Cercospora* 10585  
 colour 5077  
 endosperm 3151  
 endosperm, texture 1188  
 flowering, review 62  
 growth period 7136  
 habit 2081  
 hairs 9641  
 height 6121, 10575  
 inflorescence 2081, 9641  
 leaf 2081, 5077  
 leaf, colour 2081, 4150, 8880  
 lignin 4150, 8880  
 ligule 4130  
 protein 4151  
 ratooning 6124  
 seed, anatomy 3141  
 seed, colour 4130, 8882  
 seed, number 3142  
 seed, shape 5077  
 spikelets 4130, 5077, 8882, 9641  
 spikelets, colour 5077, 9641  
 starch 3141  
 sterility, male 8131  
*Striga* 2794  
 tannin 8133  
 tillering 6124  
 wax 1195, 4123, 4146, 6121  
 genotype  $\times$  environmental interaction 1192, 8141  
 geography 10574  
 germination 4144, 4161, 5078, 5086, 7139, 7140, 7154, 8143  
 germplasm banks, India 4115  
 germplasm releases  
 Argentina 8132  
 France 8132  
 USA 8132, 10567  
*Gibberella* 4160, 7157  
*Gloeocercospora* 4157, 7158, 7159  
*Gloeocercospora*, technique 7172  
*Gonatobotrys* 1193  
 growth period 2087, 2088, 2089, 3143, 3150, 6123, 7125, 7127, 7136, 8132, 8134, 8137, 8138, 8140, 8143, 8881, 9642, 9643, 9645, 10571, 10574  
 habit 2081  
 hairs 2794, 5088, 8885, 9641  
 harvesting 339, 340, 7140  
 heat and drought resistance 341, 1192, 3154, 4159, 4161, 4162, 6130, 7150, 7154, 7156  
 review 1721, 5084  
 heat and drought resistance, technique 92, 2097, 7155  
 height 334, 336, 2088, 2089, 3143, 3150, 6121, 6123, 6129, 7127, 7136, 7147, 8132, 8134, 8137, 8140, 8143, 9642, 9645, 10574, 10575  
*Heliothis* 4160  
*Helminthosporium* 8146  
*Helminthosporium*, technique 7171  
 heritability 338, 4118, 4140, 6126  
 growth period 8134  
 height 8134

**Sorghum contd.**

heritability *contd.*  
 protein 10570  
 heterosis 335, 2082, 4132, 4134, 4143, 4144, 4145, 5074, 7126, 7143  
 forage 10577  
 iron 9649  
 nitrate reductase 7133  
 protein 10570  
 tannin 10581  
 yield components 9645, 10577  
 hybrid varieties 1184, 2080, 4127, 6131, 9640  
 hybrid varieties, technique 5081, 5082, 8881  
 hybridization 3140  
 hybridization, interspecific 73, 332, 2083, 3853, 4120, 4135, 5803, 7126, 7135, 10572  
 hybridization, technique 8143  
 inflorescence 2081, 4158, 4160, 9641  
 inflorescence, size 2794, 4118  
 infrared rays 5076  
 inhibitors 2081, 5077  
 awns 8882  
 spikelets 8882  
 insects 4172, 8149, 8150  
 review 8144  
 insects, technique, review 8145  
 internode 6129  
 irrigation 1191, 4155, 7168, 7169  
*Khuskia* 1193  
 leaf 2081, 2089, 5077, 8136, 8885  
 leaf, colour 2081, 4150, 5088, 8880, 9644  
 leaf, texture 5088  
*Leptocoris* 4160  
 lethals 4130  
 light, effect of 336, 5076  
 ligule 4130  
 linkage 2081, 4130, 5077  
 awns 9641  
 hairs 9641  
 inflorescence 9641  
 spikelets 9641  
 spikelets, colour 9641  
 lodging 6122, 6129, 10571  
*Macrophomina* 2794, 4133, 5072, 7165, 7166, 7167, 7168, 7169, 7170, 8146, 10584  
*Macrophomina*, technique 7164  
 meiosis 3144, 7137  
*Melanaphis* 4182  
 mixtures of crops or genotypes 10577  
 modifiers, lysine 9644  
 multiple alleles  
 leaf, colour 8880  
 lignin 8880  
 multiple genes  
 awns 9641  
 hairs 9641  
 spikelets 9641  
 spikelets, colour 9641  
 multivariate analysis 3155, 10573  
 mutation 1030, 1036, 2084, 4146, 4150, 6121, 7136  
 leaf 8136  
 lignin 8136  
 mutation, induced 1029, 2089, 4138, 4142, 5076  
 leaf, colour 8880, 9644  
 lignin 8880  
 protein 9644  
 nucleus, size 333  
*Oligonychus* 4183, 8144, 8145  
*Ostrinia* 8145  
 outcrossing 9647  
*Penicillium* 1193  
*Peregrina* 4172  
 perennial habit 6124  
*Periconia* 5085, 9651  
*Phoma* 2794, 4160  
 photoperiodism 2087, 3140, 3862, 7136, 8145  
 plant introduction 7130  
 pleiotropy 2081, 5077  
 pollen 10576  
 pollination 5082, 10576  
 pollination, technique 4147  
 polyembryony and twinning 7137  
 polyploidy 3144, 4135, 5076, 6123  
*Puccinia* 5073, 7152, 7153, 7158, 7159, 7173, 8132, 10568, 10569  
*Pyrilla* 4157



**Sorghum contd.**

- Pythium* 4168  
 quality, for cooking 2095, 2794  
 quality, for milling and baking 337, 7142  
 quality, for nutrition 1190, 2096, 3153, 5080, 8140, 8141, 10249, 10578  
 book 5720  
 quality, for nutrition, technique 10580  
 quality, for sugar extraction 10569  
 quality, of wine 3151  
*Quelea* 5083  
*Ramulispora* 3830, 7158, 7159  
 ratooning 1191, 4122, 4125, 4149, 6124  
*Rhizopus* 4160  
*Rhopalosiphum* 3156, 4173, 8144, 8145  
*Rhizopertha* 8145  
 root 4171  
 root, anatomy 2794  
 salinity 338  
*Schizaphis* 1195, 3156, 4168, 4171, 5087, 8144, 8145, 10257, 10588  
*Sclerospora* 2794, 3888, 4156, 4163, 4164, 4167, 7158, 7161, 7162, 7163, 8132, 8146, 8704, 10568, 10569, 10583  
 physiological races, USA 4166  
*Sclerospora*, technique 2098, 2100  
 seed 8138, 10580  
 seed, anatomy 3141  
 seed, colour 1189, 2794, 4130, 7139, 7151, 8143, 8882  
 seed, number 3142, 4139, 4144  
 seed production 5081, 5082, 8881  
 seed, shape 5077  
 seed, size 2093, 2794, 3142, 4145, 8143  
 seed, weight 335, 2089, 2093, 3142, 4139, 4145, 7148, 9644  
 seedlings, weight 335  
 selection, artificial 4116, 4128, 8130, 8877  
*Setosphaeria* 4157  
 silage 2079  
*Sipha* 8144  
*Sitobion* 10257  
*Sitophilus* 1196, 6131, 8144, 8145  
*Sitotroga* 8145  
*Solubea* 8145  
 sowing and planting date 1194, 4158, 4183, 9650  
*Sphacelotheca* 8146  
*Sphacelotheca*, technique 2099  
 spikelets 2084, 4130, 4158, 5077, 8882, 9641  
 spikelets, colour 5077, 9641  
*Spodoptera* 8145  
*Spodoptera*, technique 7175, 8709  
 stability 3148, 4162, 7132, 8881, 9643, 10577  
 sterility and fertility 2084, 4135, 6123  
 sterility, male 2085, 4136, 4142, 4148, 6121, 6125, 6127, 7137, 8131, 8877, 9645  
 sterility, male, cytoplasmic 334, 2083, 2094, 4137, 4144, 5069, 5070, 7169, 8143, 8152, 8673, 10567, 10587  
 stomata, size 6123  
*Striga* 2101, 2794, 4156, 8147, 8152, 10587  
 synthetic varieties 2083  
 synthetic varieties, technique 10572  
 temperature, effect of 10576  
*Tetranychus* 8144  
 tillering 2086, 6124, 9650  
 tissue culture 1186, 3145  
*Tolyposporium* 7127  
 toxic soils 8146  
*Tribolium* 8145  
 varieties  
   Argentina 4127  
   India 9639, 9640  
   Rhodesia 2813  
   Romania 2080  
   Taiwan 1184  
   USA 5073  
 varieties, classification 1185  
 variety trials  
   Argentina 10569  
   Australia 4121  
   Brazil 10568  
   Ethiopia 4113  
   German Federal Republic 332  
   India 2078, 5072  
   Italy 5071, 7132  
   Philippines 331

**Sorghum contd.**

- variety trials contd.  
   Puerto Rico 73  
   USA 50, 2079, 3853, 4124, 4125, 4126, 5803, 7131, 8878, 8879  
   USSR 9638  
 variety trials, technique 7859  
 viruses 7152, 7153, 7177, 8132, 8146, 10569, 10590  
   physiological races, technique 7178  
 water balance 2097, 7155  
 weathering 4133, 5069, 7151, 8146, 8148  
 yield components 334, 2082, 2088, 2090, 3143, 3146, 3154, 4116, 4139, 4140, 4143, 5075, 6122, 7125, 8134, 8137, 9643, 9645, 9646, 10571, 10573, 10575, 10577, 10579  
*Sorghum* × *Oryza*, hybridization, intergeneric 4193, 4194, 4195  
*Sorghum* - *Zea*, maize, protoplast fusion 7039  
*Sorgo* (see *Sorghum*)  
*Sorrel* (see *Rumex*)  
 Southern pea (see *Vigna*, cowpea)  
 Sowing  
   *Oryza* 10612  
   *Triticum* 1823  
 Sowing and planting date  
   *Allium*, garlic 6611  
   *Allium*, onion 1526, 2601, 6610  
   *Avena* 5966, 7007  
   *Brassica*, cabbage 10997  
   *Brassica*, Chinese cabbage 869, 870  
   *Brassica*, rape 3460, 6434, 9054  
   *Cajanus* 2764, 4765, 6811, 9338, 11192  
   *Cicer* 3782, 3783, 3791  
   *Cucumis*, cucumber 11031  
   *Cyamopsis* 5242  
   *Glycine* 2729, 3766, 3769, 4713, 4723, 4737, 4740, 6764, 6767, 6775, 7760, 8607, 9311, 10135, 11127, 11161  
   *Gossypium* 3364, 8995  
   *Helianthus*, sunflower 2421  
   *Hibiscus* 1357  
   *Hordeum* 4101, 5808, 6968  
   *Ipomoea* 524, 7364  
   *Lycopersicon* 891  
   *Nicotiana* 7447  
   *Oryza* 361, 3159, 3181, 4216, 5094, 6168, 6169, 6172, 6173, 6174, 6175, 10611  
   symposium 6167  
   *Pennisetum* 10562  
   *Phaseolus* 4686, 5659, 8589  
   *Pisum* 2740  
   *Psophocarpus* 8639  
   *Raphanus* 844  
   *Secale* × *Triticum*, triticales 10395  
   *Solanum*, potato 6320  
   *Sorghum* 1194, 4158, 4183, 9650  
   *Triticum* 1726, 1760, 1765, 1849, 2935, 3930, 3965, 5808, 6967, 6968, 7950, 7951, 7964, 9467, 10315  
   *Vicia*, broad bean 2671, 6687  
   *Vigna*, cowpea 8591  
   *Vigna*, minor species 954, 4704, 4705, 7759  
   *Zea*, maize 1999, 2004, 4059, 4060, 5985, 6031, 6065  
   *Zea*, sweet corn 8066  
 Sowing, technique, *Oryza* 10613  
 Soya bean (see *Glycine*)  
*Spacelotheca*, *Panicum* 9627  
 Spacing (see Density of stand)  
 Speciation (see History and evolution)  
 Specific gravity  
   *Eucalyptus* 8469  
   *Gossypium* 4367  
   *Picea* 10039  
   *Pinus* 8482, 10036  
   *Populus* 8462  
   *Quercus* 9176  
   *Solanum*, potato 6316, 7331, 8278, 8279, 8973, 10685, 10982  
*Sphaceloma*, *Manihot* 4796  
*Sphacelotheca*  
   *Panicum* 1177, 1178, 1179, 1180, 2061, 3134, 7120  
   *Sorghum* 8146  
   *Zea*, maize 3076  
   physiological races, Moldavian SSR 10502  
*Sphacelotheca*, technique, *Sorghum* 2099

**Sphaerotheca**

- Cucumis* 8538, 11036  
*Cucumis*, cucumber 827, 2630, 6645, 6646, 11034  
*Cucumis*, melon 876, 2589, 2822, 8525, 9249  
*Cucurbita* 2590  
*Fragaria* 761, 5414, 5417  
*Prunus*, nectarine 3563  
*Prunus*, peach 3508, 3563, 10882  
*Quercus* 8459, 10947  
*Ribes* 6530  
*Ribes*, black currant 2524, 2525, 4550, 5472, 9984, 10915  
*Ribes*, gooseberry 748, 3501, 4550  
*Ribes*, red currant 4550  
*Rubus*, raspberry 3499, 5468  
*Sphenophorus*, *Poa* 8938  
 Spikelets  
   *Eragrostis* 4269  
   *Hordeum* 3112  
   *Sorghum* 2084, 4130, 4158, 5077, 8882, 9641  
   *Triticum* 151, 5845  
   *Zea*, maize 6036, 7043  
 Spikelets, aberrant, *Saccharum* 4404  
 Spikelets, anatomy  
   *Hordeum* 9613  
   *Oryza* 9686  
 Spikelets, colour  
   *Sorghum* 5077, 9641  
   *Triticum* 6925  
 Spikelets, number  
   *Avena* 3993  
   *Hordeum* 316  
   *Oryza* 9667  
   *Secale* × *Triticum*, triticales 1753, 7983  
   *Tripsacum* 2015  
   *Triticum* 1753, 2922, 3938, 6916, 6936, 8750, 10320  
 Spikelets, shape, *Triticum* 9448  
 Spikelets, size, *Oryza* 4201  
 Spinach (see *Spinacia*)  
 Spinacia  
   *Albugo* 7675  
   chemicals, as plant constituents  
     nucleic acids 57, 7729, 7730  
     peroxidase 8519  
   chemicals, general effects, ozone 2619  
   diallel analysis 872  
   *Fusarium* 7675  
   genetics, *Peronospora* 10974  
   leaf, size 872  
   molecular genetics 57, 7729, 7730  
   *Peronospora* 8519  
   physiological races 10974  
   pollution, atmospheric 2619  
   varieties, USA 7675  
   viruses 6600  
 Spines  
   *Agave* 10744  
   *Carthamus* 2428  
   *Citrus*, grapefruit × *Poncirus* 726  
   *Citrus*, lemon × *Poncirus* 726  
   *Citrus*, lime 9134  
   *Citrus*, mandarin × *Poncirus* 726  
   *Citrus*, orange 10888, 10889  
   *Citrus*, orange × *Poncirus* 726  
   *Citrus*, pomelo × *Poncirus* 726  
   *Fortunella* × *Poncirus* 726  
   *Hippophae* 4561, 6539  
   *Punica* 2537  
   *Ricinus* 4468  
   *Rubus*, blackberry 10903  
   *Solanum* 662, 1421  
   *Solanum*, egg plant 6670  
 Spines, colour, *Cucumis*, cucumber 11030  
 Spiral habit, *Cocos* 7573  
*Spodoptera*  
   *Arachis* 2831  
   *Cynodon* 2831  
   *Euchlaena* × *Zea*, maize 4072  
   *Gossypium* 3372  
   *Nicotiana* 7471, 7472  
   *Sorghum* 8145  
   *Zea*, maize 2831, 3083, 4072, 6067, 10422  
*Spodoptera*, technique  
   *Sorghum* 7175, 8709  
   *Zea*, maize 8709  
*Spondias*, varieties, USA 6541  
*Spongiospora*, *Solanum*, potato 7340



**Spring and winter habit**

- Aegilops* × *Triticum* 8728  
*Hordeum* 2047, 2853, 3113, 5808, 8848  
*Secale* × *Triticum*, triticales 1880  
*Triticum* 155, 159, 167, 168, 1082, 1793, 1796, 1805, 1809, 2853, 2940, 3930, 4863, 5808, 5845, 6931, 6954, 7925, 7932, 7933, 7938, 7956, 8728, 10315, 10325  
*Vicia*, broad bean 6696

**Spring deadspot, *Cynodon* 5174****Sprouting broccoli (see *Brassica*, sprouting broccoli)****Sprouting in the ear (see Dormancy)****Spruce (see *Picea*)****Spur variants**

- Malus* 2471, 2472, 4511, 4514, 6485, 6486, 7553, 8387, 8388, 9101, 9932  
*Prunus*, cherry 1428, 9101

**Squash (see *Cucurbita*)****Stability**

- Arachis* 2438  
*Avena* 5961, 7986  
*Brassica*, oil crops 9053  
*Brassica*, rape 9054  
*Bromus* 4258  
*Camellia* 7477  
*Carthamus* 6454, 7497, 8370  
*Cicer* 3784, 9330, 9332  
*Coffea* 9872  
*Cyamopsis* 9763, 10680  
*Dactylis* 9722  
*Daucus* 9223  
*Festuca* 3225  
*Glycine* 971, 1588, 7773, 10133  
*Gossypium* 10707  
*Helianthus*, sunflower 4472, 5379, 7490  
*Hordeum* 295, 2024, 6098  
*Lathyrus* 8960  
*Lens* 4670  
*Lolium* 5179, 7250  
*Lycopersicon* 5619  
*Oryza* 3831, 9665, 10596, 10601  
*Phaseolus* 7739, 7741, 11096  
*Pisum* 4753  
*Poa* 2188, 2190  
*Pseudotsuga* 818  
*Secale* 4937  
*Secale* × *Triticum*, triticales 1753, 1889  
*Sorghum* 3148, 4162, 7132, 8881, 9643, 10577  
*Triticum* 155, 1753, 1763, 2886, 5853, 6912, 6934, 6935, 7899, 7900, 7964, 8731, 9469, 10294  
*Vicia*, broad bean 6683  
*Vigna*, cowpea 6737, 7752  
*Vigna*, minor species 1576, 2708  
*Vitis* 772, 8444, 9162  
*Zea*, maize 1971, 4011, 4036, 7032, 7042, 8018, 8805

**Stability, technique**

- Dactylis* 1244  
*Glycine* 5684  
*Saccharum* 2332  
*Zea*, maize 1917

**Stagonospora (see also *Leptosphaeria*)**

- Saccharum* 569

**Stamen (see *Andrecium*)****Statistics 1617, 1618**

- book 994, 4772  
*Brassica*, oil crops 4455  
*Glycine* 2715

**Stem (see also Internode)**

- Agropyron* 4242  
*Boehmeria* 10746  
*Brassica*, oil crops 632  
*Bromus* 4242  
cereals 1715  
*Festuca* 4242  
*Fragaria* 1478  
*Hibiscus* 2326  
*Nicotiana* 1382, 1383  
*Oryza* 2124, 2846  
*Pisum* 5704  
*Triticum* 194, 3898, 7893, 8759  
*Vitis* 8446  
*Zea*, maize 1926, 7043, 10435

**Stem, anatomy**

- Lupinus* 7304  
*Malus* 1444  
*Mangifera* 10893  
*Oryza* 5144  
*Pennisetum* 7122

**Stem, anatomy contd.**

- Prunus*, almond 788  
*Triticum* 6929, 6977  
*Zea*, maize 6025

**Stem, colour**

- Arachis* 2440, 4483  
*Cicer* 4756  
*Gossypium* 7377  
*Hibiscus* 9019  
*Malus* 682, 3506  
*Oryza* 2121, 3176  
*Raphanus* 3654  
*Ricinus* 4468  
*Stenotaphrum* 1254

**Stem, length, *Bromus* 9728****Stem, number**

- Elettaria* 32  
*Gossypium* 7369  
*Lolium* 7246  
*Medicago* 3268, 5217, 7277, 10661  
*Oryza* 7207  
*Pisum* 11178  
*Punica* 1485  
*Triticum* 1752

**Stem pitting, *Prunus*, cherry 4529****Stem, shape, *Secale* × *Triticum*, triticales 222****Stem, size**

- Arachis* 1414  
*Corchorus* 10735  
*Lycopersicon* 7707  
*Medicago* 9749  
*Oryza* 2163  
*Populus* 9177  
*Triticum* 2906, 6927, 6929  
*Zea*, maize 5018

**Stem, weight**

- Medicago* 6247  
*Triticum* 1751, 6927  
*Zea*, maize 8829

**Stemphylium (see also *Pleospora*)**

- chemicals, as plant constituents  
  β-glucosidase 2246  
  linamarase 2246  
*Cucumis*, cucumber 11033  
*Lotus* 2246  
*Lupinus* 3295, 6273  
*Trifolium*, red clover 1283, 6260  
*Stenotaphrum*, *Oryza* 403

**Stenotaphrum**

- aneuploidy 5203  
*Blissus* 5203  
*Ceratophyllaria* 6237  
chemicals, as plant constituents,  
  anthocyanins 1254  
chimeras 1254  
cold resistance 6237, 7270  
cuttings 1254  
γ rays 1254, 5206  
gynecium, colour 1254  
habit 6237  
lawns and sports turf 5203, 10648  
mutation, induced 1254, 5206  
stem, colour 1254  
sterility and fertility 1254  
varieties, USA 5203, 6237, 10648  
variety trials, USA 7270

**Stereum**

- Malus* 10854  
*Prunus*, cherry 10854  
*Prunus*, plum 10854  
*Pyrus* 10854

**Sterility and fertility 3827, 10208**

- Acca* 764  
*Aegilops* 7971  
*Aegilops* × *Triticum* 1067, 5872, 7908, 10394  
*Agaricus* 1518  
*Agropyron* 428, 3230, 8246  
*Agropyron* × *Elymus* 9741  
*Agropyron* × *Secale* 230  
*Agropyron* × *Secale* × *Triticum* 10299  
*Agropyron* × *Triticum* 116, 2895  
*Allium*, minor species × *Allium*, onion 8507  
*Anethum* 3799  
*Anthoxanthum* 3234  
*Arachis* 7508  
*Arrhenatherum* 3233  
*Asclepias* 7407  
*Asparagus* 5564  
*Avena* 3995, 5964, 7007  
*Beta* 1364

**Sterility and fertility contd.**

- Beta*, sugar beet 9840  
book 6825  
*Brassica* 865, 3661, 8514  
*Brassica*, Brussels sprouts 4613  
*Brassica*, Brussels sprouts × *Brassica*, cabbage 4613  
*Brassica*, cabbage 4613, 5566  
*Brassica*, cabbage × *Raphanus* 2606, 3660  
*Brassica*, Chinese cabbage 1642  
*Brassica* × *Eruca* 3665  
*Brassica*, kale 1530  
*Brassica*, oil crops 632, 2399, 8361, 9056  
*Brassica*, rape 632, 1396, 1400, 9056  
*Brassica*, rape × *Raphanus* 2606  
*Brassica* × *Raphanus* 1530, 3660, 3673  
*Brassica*, turnip × *Raphanus* 2606  
*Cajanus* 2756, 2797, 6817  
*Camellia* 4448  
*Capsicum* 1417, 3485, 10842, 10969  
*Cassia* 2455  
cereals 75, 82, 3881  
*Cicer* 987, 2750  
*Cichorium*, chicory 10976  
*Citrus* 6517, 10885  
*Citrus*, lemon × *Poncirus* 9965  
*Citrus*, lime × *Fortunella* 9965  
*Citrus*, mandarin × *Poncirus* 9965  
*Citrus*, orange × *Poncirus* 9965  
*Coffea* 8354, 8355, 8356, 9048, 9874, 10801  
*Cola* 9051  
*Corchorus* 7402  
*Coriandrum* 11200  
crop plants 2826  
*Cucumis* 2635  
*Cucumis*, cucumber 6642, 8534, 11024  
*Cucumis*, cucumber × *Cucumis*, melon 8534  
*Cucumis*, melon 8525, 8534  
*Cucurbita* 878  
*Cucurbita* × *Luffa* 9251  
*Cydonia* 697  
*Dactylis* × *Festuca* 8222  
*Diplotaxis* 3665  
*Elaeis* 7499  
*Eleusine* 329  
*Elymus* × *Triticum* 115  
*Erianthus* × *Saccharum* 7416  
*Euchlaena* × *Zea*, maize 243, 244, 9580  
*Fagopyrum* 1241, 3202, 10622  
*Festuca* 6227, 7248  
*Festuca* × *Lolium* 1252, 5182, 7227, 7260, 8222, 8238  
*Festuca* × *Pennisetum* 8222  
*Festuca* × *Poa* 8222  
*Ficus* 728  
*Fragaria* 676, 3600, 9146  
fruit crops 10852  
*Glycine* 4732, 6754, 8601  
*Gossypium* 541, 545, 546, 3346, 4376, 8990, 9810  
*Gossypium* × *Hibiscus* 7379  
grasses 8225, 10626  
*Haynaldia* × *Triticum* 10300  
*Helianthus*, sunflower 1410, 2413, 2415, 2420, 3471, 5380, 6447, 9888  
*Hibiscus* 2325  
*Hordeum* 2026, 2027, 2030, 2035, 3097, 3101, 4092, 5034, 6082, 7098, 8096, 8110, 8836, 8844, 10538  
*Hordeum* × *Secale* 3098, 7089  
*Hordeum* × *Secale* × *Triticum* 2889  
*Hordeum* × *Triticum* 3900, 9452  
*Hutera* 3665  
*Hutera* × *Rhynchosinapis* 3665  
*Ipomoea* 2283  
*Kochia* 478  
*Lavandula* 10833  
*Lens* 10184  
*Linum* 8311, 9012  
*Lolium* 5185, 10632  
*Lolium* × *Poa* 8222  
*Lotus* 4307, 4310, 4311, 5237  
*Lupinus* 4305, 7307  
*Lycopersicon* 905, 908, 911, 923, 1557, 1643, 2639, 2645, 3712, 3715, 4639, 4641, 4642, 4644, 7719, 8351, 8548, 9271, 10978, 11048  
*Malus* 1441, 4510, 5427  
*Malus* × *Pyrus* 681  
*Manihot* 5334



**Sterility and fertility contd.**

- Medicago* 446, 1267, 2217, 3259, 3266, 3267, 5219, 8255  
*Mentha* 11194  
*Moricandia* 3665  
*Morus* 7569  
*Nicotiana* 593, 595, 600, 8341, 8343, 10777  
*Olea* 647  
*Oryza* 356, 2107, 2840, 2843, 3187, 3831, 4197, 4207, 5124, 6137, 6147, 7210, 8166, 8173, 9681, 9682  
*Panax* 4496  
*Panicum* 6111, 8873  
*Pelargonium* 3834, 8676  
*Pennisetum* 2066, 2067, 2070, 5065, 6113, 8129, 10560  
*Phaseolus* 1570, 1572, 9291, 10099  
*Phaseolus* × *Vigna*, cowpea 2686  
*Phleum* 6215  
*Pinus* 807, 1508, 2578, 3634, 8482  
*Populus* 5517  
*Prunus*, almond 3509, 10873  
*Prunus*, apricot 700, 10873  
*Prunus*, apricot × *Prunus*, cherry 2487  
*Prunus*, cherry 3555, 4528, 10873  
*Prunus*, peach 1457, 10873  
*Prunus*, plum 706, 5436, 7562  
*Psophocarpus* 6797, 6798, 8640  
*Punica* 2537  
*Pyrus* 1447, 3498, 6492, 10870  
*Raphanus* 2598, 10208  
*Ribes* 8424, 10916  
*Ribes*, black currant 743, 10915  
*Ribes*, black currant × *Ribes*, gooseberry 676, 2523  
*Ribes*, gooseberry 743  
*Ribes*, red currant 8425  
*Saccharum* 5318, 7414  
*Salvia* 9341, 11194  
*Sansevieria* 2330  
*Secale* 7017, 7018, 7996  
*Secale* × *Agropyron* 230  
*Secale* × *Triticum* 121, 230, 6919, 9452  
*Secale* × *Triticum*, triticales 220, 1879, 2991, 2993, 3982, 3985, 4921, 5939, 5941, 5942, 5944, 6997, 7001, 8775, 8776  
*Solanum* 765, 1483, 2456, 2457, 7599, 10845  
*Solanum*, egg plant 926, 1483, 2657, 7727, 11068  
*Solanum*, potato 490, 491, 1308, 1312, 1314, 2258, 2263, 5251, 6298, 6301, 6308, 6314, 10685  
*Sorghum* 2084, 4135, 6123  
*Stenotaphrum* 1254  
*Tilia* 8472  
*Trichosanthes* 2633  
*Trifolium* 7290  
*Trifolium*, Alsike clover × *Trifolium*, minor species 1276  
*Trifolium*, Alsike clover × *Trifolium*, white clover 1276  
*Trifolium*, minor species × *Trifolium*, white clover 1276  
*Trifolium*, red clover 3284, 5226  
*Trifolium*, white clover 10673  
*Trigonella* 2248, 4315  
*Tripsacum* × *Zea*, maize 9580  
*Triticum* 120, 121, 138, 1771, 1793, 2892, 2895, 2937, 3909, 3919, 7903, 7905, 7909, 7915, 7972, 9448, 10298, 10333, 10394  
*Vaccinium* 6532, 6533, 8427, 10917  
*Valeriana* 7526  
*Vicia*, broad bean 4670  
*Vigna*, minor species 953, 3744, 5671, 10125  
*Vitis* 3610, 4565, 4566, 8440, 10010  
*Xanthosoma* 2359  
*Zea*, maize 1961, 4035, 5002  
*Zingiber* 2454
- Sterility and fertility, technique**  
*Brassica* 6616  
cereals 5804  
*Medicago* 5218  
*Nicotiana* 2371  
*Raphanus* 6616
- Sterility, female**  
*Fagopyrum* 4229, 8929  
*Hordeum* 8078
- Sterility, male** 998, 5750, 6846

**Sterility, male contd.**

- Aegilops* × *Triticum* 1775  
*Allium*, garlic 8513  
*Allium*, leek 10972  
*Allium*, onion 1015, 6849, 8668, 10972  
*Beta* 1015, 6849, 8668  
*Beta*, sugar beet 577, 6390, 10768  
*Brassica*, review 857  
*Brassica*, broccoli × *Brassica*, cabbage 10973  
*Brassica*, Brussels sprouts 7669  
*Brassica*, cabbage 5566, 7669  
*Brassica*, cabbage × *Brassica*, cauliflower 10973  
*Brassica*, cauliflower 7669  
*Brassica*, Chinese cabbage 3680  
*Brassica*, kale 7669  
*Brassica*, rape 1395, 1403, 9055  
*Cajanus* 2797  
*Capsicum* 653, 1015, 6849, 8668, 9092, 10841  
*Carthamus* 4478, 5387  
*Cicer* 3785  
*Cucumis*, cucumber 11023  
*Cucumis*, melon 6849, 11007  
*Cucurbita* 1015, 5608, 6849, 8668  
*Datura* 1015, 6849, 7527, 8668  
*Daucus* 5547, 10970  
*Fagopyrum* 8929  
*Festuca* × *Lolium* 3223  
*Glycine* 957, 1591, 3754, 4724, 6757, 6758, 7766, 10128, 11141  
*Gossypium* 2291, 3360  
*Helianthus*, sunflower 641, 2414, 2417, 2419, 6448, 9889  
review 10227  
*Hordeum* 3088, 5028, 6086, 7079, 8068, 8069, 8851  
*Hordeum* × *Triticum* 3900  
*Lactuca* 10975  
*Lathyrus* 8962  
*Lolium* 6221  
*Luffa* 3704  
*Lycopersicon* 901, 1552, 3710, 6652, 7709, 9270  
*Lycopersicon* × *Solanum* 901  
*Medicago* 446, 447  
*Nicotiana* 3425  
*Origanum* 6824, 9342  
*Oryza* 2135, 2146, 2844, 3186, 4186, 7189, 8167, 8171, 8173, 8677, 9367, 10607  
*Panicum* 9622, 9623  
*Pennisetum* 325  
*Phaseolus* 3734, 7743, 7744, 11097, 11099, 11100  
*Prunus*, plum 4526  
*Ranunculus* 6849  
*Raphanus* 10971  
*Secale* 3020, 8007, 8791  
*Secale* × *Triticum*, triticales 5939  
review 1878  
*Sesamum* 1015, 6849, 8668, 9064  
*Solanum*, egg plant 653, 1015, 8668  
*Solanum*, potato 2258, 6301, 7324  
*Sorghum* 2085, 4136, 4142, 4148, 6121, 6125, 6127, 7137, 8131, 8877, 9645  
*Thymus* 3800  
*Trifolium*, red clover 7294  
*Triticum* 163, 1015, 1794, 5890, 6849, 6952, 7886, 7901, 7952, 8668, 9390, 10295  
review 1878  
*Vicia*, broad bean 6686  
*Vigna*, cowpea 6734, 7753  
*Vitis* 10010  
*Zea*, maize 1131, 1959, 1960, 7051, 9534, 9565, 9567  
review 10227
- Sterility, male, cytoplasmic** 998, 6846  
*Aegilops* × *Triticum* 107  
*Agropyron* 6234  
*Allium*, onion 5558, 6607, 8668  
*Beta* 8668  
*Beta*, sugar beet 576, 1367, 2347, 2348, 3393, 6390, 6392, 6868, 8327  
*Brassica* 7667, 7668  
review 857  
*Brassica*, cabbage 3458  
*Brassica*, cabbage × *Brassica*, kale × *Raphanus* 3678  
*Brassica*, rape 1401, 1402, 3458, 4457, 5569, 5573

**Sterility, male, cytoplasmic contd.**

- Brassica*, rape × *Raphanus* 5572  
*Brassica* × *Raphanus* 1401, 3673, 5569  
*Brassica*, turnip 3304  
*Capsicum* 5401, 8668, 10841  
*Chenopodium* 6197  
crop plants 3048  
*Cucurbita* 8668  
*Dactylis* 4254  
*Datura* 8668  
*Daucus* 2587, 9220, 9224, 9225, 10970, 10984  
*Diplotaxis* 857  
*Gossypium* 537, 1335, 3344, 4380  
*Helianthus*, sunflower 1410, 2414, 2417, 3468, 3472, 4471, 5383, 6442, 6448  
*Hordeum* 306, 8114  
*Linum*, review 557  
*Medicago* 447, 448, 451, 1265, 2221, 3245  
*Nicotiana* 605, 1378, 1380, 5348, 5349, 5351, 6411, 7443, 7446, 7449, 8335, 10771, 10772, 10786, 10791  
review 7453  
*Origanum* 6824, 9342  
*Oryza* 3180, 4209, 5126, 7189, 8172, 8174, 8906, 8909, 9674, 10601  
*Pennisetum* 324, 9630  
*Petunia* 1004  
*Raphanus* 857, 2588, 3458  
*Salvia* 11194  
*Secale* 234, 8007, 9515  
*Sesamum* 8668  
*Solanum*, egg plant 8668  
*Solanum*, potato 1314, 6313  
*Sorghum* 334, 2083, 2094, 4137, 4144, 5069, 5070, 7169, 8143, 8152, 8673, 10567, 10587  
*Triticum* 107, 108, 150, 156, 157, 173, 179, 1065, 1086, 1788, 1799, 2899, 2918, 2932, 2936, 2941, 2942, 3916, 3919, 4870, 5860, 5878, 5888, 5889, 6868, 6939, 7875, 8668, 10292, 10336  
*Vicia*, broad bean 3726, 7733, 7735, 11082  
*Zea*, maize 250, 264, 281, 283, 284, 285, 1932, 1975, 1976, 2008, 3048, 3077, 4038, 4069, 4992, 5996, 6028, 6029, 6041, 6042, 6063, 6846, 6868, 7052, 7053, 7069, 8026, 8027, 8043, 8061, 8062, 9532, 9538, 9557, 9566, 9567, 9573, 9591, 10238, 10468, 10493, 10495
- Sterility, male, cytoplasmic, technique, Zea, maize** 257, 1978
- Sterility, male, technique**  
*Helianthus*, sunflower 6446  
*Nicotiana* 2371  
*Zea*, maize 6038
- Sterility, self** 1621, 2791, 8669  
*Aegilops* 7973  
*Anthoxanthum* 3234  
*Beta*, sugar beet 576, 6391, 6392  
*Brassica* 2607, 2609  
review 858, 6615  
*Brassica*, Brussels sprouts 2615, 3686, 4613, 5570, 5571, 6624, 10973  
*Brassica*, Brussels sprouts × *Brassica*, cabbage 4613  
*Brassica*, cabbage 1537, 1538, 4613, 5570, 5588, 10973  
*Brassica*, cauliflower 1543, 3683  
*Brassica*, kale 1537  
*Brassica*, oil crops 1398, 5567, 8361  
*Brassica*, rape 2401, 6432  
*Brassica*, sprouting broccoli 4622, 5570  
*Brassica*, swede 5567, 7834  
*Citrus*, pomelo 6519  
crop plants 2826  
*Fagopyrum* 406, 3204, 5149, 8925, 8926, 10621  
*Gossypium* 9804  
grasses 10625, 10626  
*Helianthus*, sunflower 2415, 3471, 5380, 8368, 9888  
*Hibiscus* 2323  
*Ipomoea* 5271, 9800  
*Lolium* 5185  
*Lotus* 473, 1291  
*Lupinus* 7307  
*Lycopersicon* 2640, 2644, 3708, 4649, 11052  
*Malus* 1441, 2471, 9106, 9927



**Sterility, self** *contd.*

- Medicago* 446, 1270, 3251, 3263
- Nicotiana* 599, 2372, 3432, 6401, 9036
- Onobrychis* 5234
- Paspalum* 6228
- Passiflora* 5486
- Petunia* 6847
- Prunus*, cherry 1428, 5438, 5440
- Prunus*, plum 4526, 8397
- Raphanus* 858, 3652
- Ribes*, black currant 746
- Ribes*, black currant  $\times$  *Ribes*, gooseberry 2523
- Ribes*, gooseberry 5474
- Ribes*, red currant 8425
- Rosa* 10837
- Rubus*, raspberry 8423
- Secale* 48, 233, 4938, 7017, 7018, 7996, 8002, 10419
- Secale*  $\times$  *Triticum* 9501
- Secale*  $\times$  *Triticum*, triticales 10399
- Trifolium*, red clover 3280, 3281
- Triticum* 163
- Vaccinium* 9985
- Vicia*, broad bean 48, 2670, 7736
- Vitis* 2551
- Vulpia* 3235
- Zingiber* 6469

**Stevia**

- chemicals, as plant constituents, stevioside 3418
- tissue culture 5759, 5760
- varieties, S. Korea 3418

**Stigma** (see *Gynecium*)**Stigmata**, *Prunus*, almond 6562**Stizolobium** (see *Mucuna*)**Stock** (see *Grafting*; *Rootstock*)**Stomata**

- Camellia* 5359
- Corchorus* 3381
- Curcuma* 34
- Fragaria* 3600
- Glycine* 2720
- Lactuca* 3687
- Nicotiana* 3436
- Papaver* 1389
- Phaseolus* 3737
- Poa* 6206
- Prunus*, almond 7622
- Pseudotsuga* 4597
- Pyrus* 10871
- Salix* 5529
- Solanum*, potato 8285
- Triticum* 191
- Vaccinium* 3596
- Vitis* 7609, 10935
- Zea*, maize 6054

**Stomata, number**

- Agropyron* 9408
- Camellia* 624
- Cucumis*, cucumber 4635
- Elymus* 9408
- Hevea* 3494
- Hordeum* 3114, 9408
- Lactuca* 10975
- Populus* 10025
- Secale* 9408
- Triticum* 2931, 9408

**Stomata, size**

- Agropyron* 9408
- Beta*, sugar beet 7423
- Camellia* 624
- Cucumis*, cucumber 4635
- Elymus* 9408
- Hevea* 3492, 3494
- Hordeum* 9408
- Oryza* 7187
- Populus* 10025
- Secale* 9408
- Sorghum* 6123
- Triticum* 9408

**Stone fruits**

- chemicals, as plant constituents
- amygdalin 9952
- fatty acids 65
- prunasin 9952
- hybridization, interspecific 3556, 9952

**Storage of planting material**

- Allium*, onion 848
- Solanum*, potato 10691
- Trifolium*, white clover 10674

**Storage quality** (see *Quality*, for storage)**Straighthead**, *Oryza* 8914**Strawberry** (see *Fragaria*)**Streptomyces**

- Ipomoea* 8299
- Solanum*, potato 6325, 6326, 7835, 8982
- physiological races, Hungary 8296

**Streptomyces, technique**, *Solanum*, potato 2272**Striga**, *Sorghum* 2101, 2794, 4156, 8147, 8152, 10587**Stunt**, *Nicotiana* 616**Stunting**, *Gossypium* 8995**Style** (see *Gynecium*; *Heterostyly*)**Stylosanthes**

- chromosomes, number 4314
- Colletotrichum* 4313
- computer programming 5767
- ecotypes 4314
- fire effects 7308
- germplasm banks, technique 5767
- Glomerella* 4313, 4314
- multivariate analysis 5767
- polyploidy 4314
- varieties, Australia 10679

**Substitution lines**

- Brassica* 10995
- Triticum* 5847, 5866, 7963

**Subterranean clover** (see *Trifolium*, subterranean clover)**Succession, crop**

- Cucumis*, cucumber 1549
- Glycine* 9310, 11168
- Helianthus*, sunflower 6449
- Hordeum* 1142
- Ipomoea* 8300
- Lupinus* 1290
- Oryza* 2156, 5135
- Secale* 1316
- Solanum*, potato 1316
- Triticum* 1849
- Vigna*, cowpea 2700, 10117

**Sudan grass** (see *Sorghum*)**Sugar beet** (see *Beta*, sugar beet)**Sugar cane** (see *Saccharum*)**Sugar extraction** (see *Quality*, for sugar extraction)**Sunflower** (see *Helianthus*, sunflower)**Sunn hemp** (see *Crotalaria*)**Supernumerary chromosomes** (see *Chromosomes*, accessory)**Swede** (see *Brassica*, swede)**Sweet clover** (see *Melilotus*)**Sweet corn** (see *Zea*, sweet corn)**Sweet potato** (see *Ipomoea*)**Sweet sorghum** (see *Sorghum*)**Swietenia**

## hybridization, interspecific 1499

## taxonomy 1499

**Symposium**

- anther culture 7816
- Brassica*, breeding 3659, 5565, 5574
- cereals, physiology 78, 83, 88, 1705, 1710, 1720
- Citrus*, pathology 3567
- crop plants
- anther culture 8667
- breeding 1647, 4807, 9375, 9386
- Pakistan 5766
- chemicals, as nutrients, miscellaneous 8690
- cold resistance 70
- genetic engineering 5787
- genetic resources 1660
- glass and plastic, cultivation under 70
- insects 7857
- light, effect of 70
- mutation, induced 5780
- pathology 2818, 6182, 7857
- plant introduction, to Japan 9370
- protoplast fusion 8667
- radiation 1659
- tissue culture 8667
- Cruciferae, breeding 3659, 5565, 5574
- Fagopyrum*, breeding 8924
- fruit crops, breeding 1423, 3502
- genetics 9375, 9386
- Glycine* 11119
- grasses
- breeding 4235
- quality 7236
- leguminous forage crops
- breeding 4235
- quality 7236
- Medicago*, breeding 3238, 3250

**Symposium** *contd.**Oryza*

- agronomy 3157
- botany 3157
- breeding, India 1198
- cold resistance 7209
- floodings 5089, 5102
- Nilaparvata* 388
- pathology 3157
- Pyricularia* 6182
- quality 6157, 7194
- sowing and planting date 6167
- polyploidy 5743, 6832, 6840, 7849
- protoplast fusion 7816
- Psophocarpus*, breeding 6795, 8624, 8635
- pulses
- breeding 4663
- pathology 11074
- Rubus*, breeding 10898
- Secale*  $\times$  *Triticum*, triticales, genetics 1876
- Triticum*
- breeding 1745
- chemicals, as plant constituents, protein 1088
- genetics 1828, 1876
- vegetable crops, quality 825
- Vicia*, broad bean, breeding, Europe 2664
- Zea*, maize, breeding 1915

**Synapsis** (see *Meiosis*)**Synchytrium**

- Psophocarpus* 5714, 6810, 8640
- Solanum*, potato 3321, 7313, 7835, 8984
- physiological races 9792
- German Democratic Republic 3326

**Syndesis** (see *Meiosis*)**Synthetic varieties**

- Agropyron* 6233
- Allium*, onion 10047
- Arctagrostis* 5201
- Astragalus* 5239
- Calamagrostis* 5202
- Coronilla* 3300
- crop plants 2830
- Elymus* 5200
- Fagopyrum* 8927
- Festuca* 3225
- Lespedeza* 468
- Medicago* 1264, 2212, 4279, 5209
- Pennisetum* 8672
- Poa* 5165
- Secale* 8785
- Sorghum* 2083

**Synthetic varieties, technique**

- Medicago* 10657
- Sorghum* 10572

**Systematics** (see *Taxonomy*)**Syzygium**

- fruit, colour 1484
- fruit, shape 1484
- fruit, size 1484
- parthenocarpy 1484
- seedlessness 1484
- varieties, classification 1484
- Taeniothrips*, *Vigna*, cowpea 3740
- Tanacetum*, chemicals, as plant constituents, oil, essential 10832
- Tangerine* (see *Citrus*, tangerine)
- Tapioca* (see *Manihot*)
- Taro* (see *Colocasia*)
- Tarragon* (see *Artemisia*)
- Taxonomy** 9362, 9363, 9364, 9365, 10209
- Acer* 2574
- Aegilops* 3955, 7974, 9496
- Aesculus* 2573
- Agropyron* 3232
- Agrostis* 5170
- Allium*, minor species 4612
- Amaranthus* 930
- Amelanchier* 766
- Anthyllis* 4316
- Arachis* 7516, 9901
- Artemisia* 3488, 3490, 4498
- Astragalus* 8272, 9766
- Atriplex* 7730
- Atropa* 9919, 9920
- Avena* 9503
- Brassica* 853, 1532, 3661, 6617
- review 6614
- Brassica*, oil crops 3663
- Brassica*  $\times$  *Raphanus* 853
- Bromus* 9729



**Taxonomy contd.**

- Cannabis* 2318  
*Capsicum* 657, 1420, 5403  
*Celosia* 930  
cereals 7872  
*Chenopodium* 6200  
*Cicer* 8952  
*Citrus* 719, 6517, 7567, 9956  
*Citrus*, grapefruit 8417  
*Citrus*, pomelo 8417  
*Coffea* 4449, 8353  
*Crataegus* 3542  
crop plants 187, 5719  
    review 1683  
*Cucumis* 11037  
*Cucumis*, melon 11009, 11010  
*Cucurbita* 11018, 11019  
Cucurbitaceae, review 5600  
*Daucus* 9208  
*Elymus* 8247  
*Eragrostis* 4269, 4270  
*Eucalyptus* 8470  
*Euchlaena* 8053, 9580  
*Fagus* 2570  
*Festuca* 3226, 5195, 5196, 6227  
    review 7256  
*Glycine* 957, 2809, 4732, 5692, 7765  
*Gossypioideis* 2305  
*Gossypium* 2305, 2307, 7372, 7389  
*Helianthus*, Jerusalem artichoke 9070  
*Helianthus*, sunflower 9070  
*Hordeum* 310, 1158, 5048, 6100, 8123, 9613  
*Ipomoea* 8301  
*Lagenaria* 3705  
*Larix* 5541  
*Lathyrus* 8952  
Leguminosae 10090  
*Lens* 8952  
*Lolium* 8944  
*Luffa* 3705  
*Lupinus* 8268  
*Lycopersicon* 912  
*Malus* 4516  
*Medicago* 2219, 2225  
    book 996  
*Mucuna* 10683  
*Nicotiana* 2369, 5355, 9043, 10795  
*Ocimum* 2771  
*Oryza* 1207, 3831, 7206  
*Papaver* 9879  
*Pennisetum* 2070, 5066, 10564  
*Phaseolus* 6716, 6718  
*Picea* 4591, 4594  
*Pisum* 3780, 5705, 8952, 10090  
Pooideae 4245  
*Populus* 4580, 6575  
*Prunus*, almond 8456  
*Prunus*, apricot 9116  
pulses, review 10089  
*Quercus* 5516, 6568, 6569  
*Raphanus* 9208  
*Rhizobium* 7732  
*Salix* 4580  
*Salvia* 4769  
*Scorzonera* 931  
*Sinapis* 6617  
Solanaceae, book 995  
*Solanum* 928, 10847  
    review 765  
*Solanum*, egg plant 928  
*Solanum*, potato 504, 1315, 3319, 5257, 6319, 9787, 9796  
*Swietenia* 1499  
*Thymus* 2772, 4770  
*Trichosanthes* 2633  
*Trifolium*, minor species 1286  
*Trifolium*, red clover 460  
*Tripsacum* 7078, 9580  
*Triticum* 186, 187, 2956, 3953, 3955, 7905, 7948, 9479  
*Vaccinium* 3596  
*Valeriana* 664  
*Vicia* 6691, 10090  
*Vicia*, broad bean 2674, 2675, 3730, 8571, 8952  
*Vicia*, vetch 8571, 8952  
Viciaceae 8952  
*Vigna*, minor species 4708, 6716, 9306  
*Vitis* 6555  
*Zea*, maize 1134, 1135, 8053, 9580  
**Taxonomy, technique, *Hordeum*** 4100

**Taxus**

- breeding, Georgian SSR 5512  
genetic resources 789  
**Tea (see *Camellia*)**  
**Tectona, *Microcerotermes*** 8473  
**Temperature, effect of**  
*Allium*, onion 848, 6608  
*Arachis* 7509  
*Avena* 91  
*Beta*, sugar beet 4416  
*Brassica*, cabbage 5589  
*Brassica*, Chinese cabbage 870  
*Brassica*, rape 1400, 10813  
*Bromus* 6217  
*Cicer* 987, 5710, 5711, 7731  
*Coffea* 4450  
*Cucumis*, cucumber 3700, 4634, 10977  
*Cymbopogon* 4492  
*Dactylis* 1245, 5169  
*Festuca* 8243  
*Fragaria* 758  
*Glycine* 3756, 6758, 6760, 10143, 11148, 11152, 11153  
*Gossypium* 545, 3364, 8993  
grasses 7237  
*Hordeum* 91, 1147, 2028, 3129, 5038, 6082, 6090, 8102, 10555  
*Ipomoea* 4820, 5275  
*Lolium* 7253  
*Lycopersicon* 2591, 3706, 4638, 4648, 4820, 8549, 9268, 10083, 10978, 11063  
*Malus* 684, 9931  
*Manihot* 1634, 2357, 7428  
*Mayetiola* 4831  
*Medicago* 446, 1267, 3245, 4300, 6245, 6250, 7286  
*Nicotiana* 606, 607, 2363, 2364, 4820, 6408, 8692, 9860, 10784  
*Olea* 7501  
*Oryza* 357, 1226, 2141, 2150, 3180, 3181, 5127, 8166, 8171, 9673, 9681, 9690, 10605, 10609  
*Panicum* 321  
*Papaver* 9877, 9878  
*Phaseolus* 2687, 2690, 3736, 4686, 6713, 6721, 6722  
*Phleum* 8941  
*Picea* 10964  
*Pinus* 810, 7639, 10961  
*Pisum* 5701  
*Populus* 2566, 2568  
*Prunus*, almond 7622, 10944  
*Prunus*, peach 8413  
*Psophocarpus* 6797  
*Puccinia* 10390  
*Raphanus* 841, 5554  
*Ribes*, black currant 743  
*Ribes*, gooseberry 743  
*Rubus*, blackberry 7583  
*Saccharum* 4405, 9022  
*Secale* 91, 233, 234, 3012, 9515, 10419  
*Secale* × *Triticum*, triticale 3989  
*Solanum*, potato 495, 515, 2270, 6315, 7332, 7334, 9791, 10691  
*Sorghum* 10576  
*Trifolium*, minor species 4300  
*Trifolium*, red clover 8692  
*Trifolium*, subterranean clover 4299, 4300  
*Triticum* 81, 91, 1080, 1102, 1712, 3932, 3956, 4865, 4909, 4915, 6936, 6941, 7923, 8725, 10382, 10383, 10385, 10390  
*Vigna*, cowpea 6737  
*Vigna*, minor species 4704, 4705, 7731  
*Vitis* 782, 6550  
*Zea*, maize 254, 259, 1113, 1972, 1983, 3046, 4031, 4045, 4068, 4993, 5005, 6033, 6053, 7046  
**Temperature, effect of, technique, crop plants** 5793  
**Tenebrio, *Triticum*** 1872  
**Teosinte (see *Euchlaena*)**  
**Teratology (see Development, abnormal)**  
**Testa (see Seed)**  
**Tetranychus**  
*Cucumis*, cucumber 7694, 7695, 7696, 9413, 10977, 11035  
*Fragaria* 9148  
*Gossypium* 3374, 6360, 10729  
*Humulus* 5368, 5369  
*Lycopersicon* 8562  
*Manihot* 3416, 8329

**Tetranychus contd.**

- Phaseolus* 10098  
*Rubus*, raspberry 1474  
*Solanum*, potato 499  
*Sorghum* 8144  
**Thaia, *Oryza*** 2174  
**Thalictrum**, tissue culture 5758  
**Thanatephorus**  
*Hevea* 4500  
*Oryza* 3167, 3195, 5142  
**Thanatephorus, technique, *Nicotiana*** 2378  
**Thea (see *Camellia*)**  
**Thecaphora, *Solanum*, potato** 1318  
**Thecodiplosis, *Pinus*** 7643  
**Theobroma**  
centres of origin or diversity, review 1388  
*Ceratocystis* 4451, 5363  
chemicals, as plant constituents  
    aminoacids 5362  
    chlorophyll 29  
    protein 5362  
combining ability, viruses 9049  
*Crinipellis* 4451  
embryo culture 628  
germplasm banks  
    Costa Rica 1671  
    Ghana 6428  
history and evolution 1388  
leaf 29  
*Marasmius* 629  
maternal effects, viruses 9049  
*Moniliophthora* 4451  
*Phytophthora* 29, 3451, 4451  
*Planococcoides* 5365, 5366  
plant introduction, to Ghana, review 6428  
pollination 29  
varieties, classification 5362, 7482  
viruses 5364, 5365, 5366, 9049  
**Therioaphis, *Medicago*** 2229, 2801, 3240, 3242, 5224, 6257, 6258, 10656  
**Thielaviopsis, *Nicotiana*** 614, 617, 618, 4444, 4445, 9034, 9852, 10774, 10775, 10782  
**Thielaviopsis, technique**  
*Nicotiana* 2378  
*Phaseolus* 11079  
**Thinning, *Pyrus*** 5435  
**Thorns (see Spines)**  
**Thrips, *Solanum*, potato** 499  
**Thuja**  
haploidy 7850  
history and evolution 7850  
mixtures of crops or genotypes 7850  
**Thyme (see *Thymus*)**  
**Thymus**  
chemicals, as plant constituents  
    oil, essential 2772, 4770  
    thymol 8653  
chromosomes, accessory 5716  
chromosomes, morphology 5716  
chromosomes, number 1610, 3861, 5716  
genetics, thymol 8653  
outcrossing 8653  
polyploidy 5716  
sterility, male 3800  
taxonomy 2772, 4770  
**Tilia**  
chemicals, mutagenic effects, miscellaneous 9174  
climate 8472  
cold, effect of 8472  
mutation, induced, book 9174  
sterility and fertility 8472  
**Tillering**  
*Aegilops* × *Triticum* 1067, 1775  
*Bromus* 7244, 9728  
*Cymbopogon* 2445  
*Euchlaena* × *Zea*, maize 9545  
*Festuca* 2197, 5191, 5192, 5194, 7248  
*Hordeum* 2046, 4097, 5035, 8087, 8838  
*Lolium* 4260  
*Oryza* 358, 364, 1229, 2131, 2142, 2163, 3158, 3170, 3182, 5107, 6169, 6174, 9652, 10598  
*Phalaris* 5197  
*Poa* 2189  
*Secale* 1914, 5975, 9514  
*Secale* × *Triticum*, triticale 217, 221, 1889, 4923  
*Setaria* 10557  
*Sorghum* 2086, 6124, 9650



Tillering *contd.*

- Tripsacum* × *Zea*, maize 4019  
*Triticum* 161, 163, 1104, 1756, 1757,  
 1792, 2912, 2914, 5880, 5887, 6888,  
 6896, 6921, 6936, 6938, 6945, 6947,  
 6948, 7929, 8727, 9455, 9465, 10271,  
 10313, 10320, 10326, 10330  
*Zea*, maize 1918, 9565  
*Zea*, sweet corn 1140

## Tilletia

- Oryza* 1202, 1203, 6136  
*Secale* × *Triticum*, triticales 8707  
*Triticum* 111, 1841, 2970, 4892, 5837,  
 5927, 6911, 7885, 7902, 8707, 9374,  
 9440, 9482

## Timber quality (see Quality, of timber)

Timothy (see *Phleum*)

## Tip burn

- Brassica*, Chinese cabbage 10973  
*Brassica*, turnip 10973  
*Lactuca* 3688

## Tissue culture 9391, 11203

- Acer* 802  
*Actinidia* 2536, 9151  
*Aegilops* 7931  
*Aegilops* × *Triticum* 7931  
*Allium*, garlic 5562  
*Allium*, onion 5560  
*Arachis* 9079  
*Atropa* 7818  
*Avena* 4823  
*Beta*, fodder beet 1297  
*Beta*, sugar beet 10765  
*Brassica*, cabbage 3681  
*Brassica*, cauliflower 2614  
*Brassica*, oil crops 2402, 8362  
*Brassica*, rape 4463, 5577, 10810  
*Brassica*, sprouting broccoli 6623  
*Camellia* 10798  
*Carica* 5463  
*Cenchrus* 2200  
*Cicer* 2662  
*Citronella* 9085  
*Citrus* 7818  
 review 5452  
*Citrus*, lemon 5454  
*Citrus*, lemon × *Poncirus* 5454  
*Citrus*, orange 5454, 9130  
*Citrus*, pomelo 9136  
*Coffea* 5360  
*Coix* 9559  
*Costus* 7818  
 crop plants 5790, 5793, 8688, 8689, 9357  
 review 8687  
 symposium 8667  
*Cucumis*, cucumber 885, 6643  
*Datura* 8381  
*Daucus* 4601  
*Dioscorea* 7818, 9031  
*Elaeis* 9074  
*Erianthus* × *Saccharum* 7416  
*Eucalyptus* 3632  
*Euchlaena* 9559  
*Festuca* 5155  
*Fragaria* 4504, 8432  
*Glycine* 1585, 5687  
*Gossypium* 1349, 2298  
*Helianthus*, sunflower 7492  
*Hordeum* 2026, 2043, 6089, 7097, 9605  
*Lactuca* 2596  
*Laminaria* 4771  
 leguminous forage crops 8688  
*Linum* 6363  
*Lolium* 5155  
*Lotus* 10678  
*Lycopersicon* 910, 1522, 2596, 2640,  
 3708, 3714, 4644, 9265, 11047, 11052  
*Malus* 683, 2475, 3497, 4504, 9105  
*Manihot* 2353, 2356  
*Medicago* 1258, 2214, 2220, 4286, 5790,  
 6246, 10660, 10662  
 medicinal plants 8689  
*Nicotiana* 592, 593, 1016, 2362, 2364,  
 2816, 3431, 4431, 4432, 4789, 5344,  
 5346, 6400, 6409, 6410, 6412, 7444,  
 7451, 8342, 8345, 9039, 9041, 9855,  
 10782, 10789, 10792  
*Nigella* 5405  
*Olea* 3475  
*Oryza* 2127, 2147, 4205, 4206, 5790,  
 6151, 8165, 8674, 8910, 8911, 9672,  
 10603, 10606  
*Panax* 663, 5756, 5757, 9097, 9098

Tissue culture *contd.*

- Panicum* 9624  
*Pennisetum* 6116, 9632, 10563  
*Phaseolus* 4684  
*Phoenix* 739, 4542  
*Prunus*, apricot × *Prunus*, cherry 699  
*Pseudotsuga* 3649  
*Psophocarpus* 4762  
 pulses 8688  
*Raphanus* 1522  
*Rauwolfia* 9097  
*Rubus*, blackberry 4504  
*Rubus*, raspberry 7581  
*Saccharum* 4406, 9023, 9837  
*Santalum* 2448  
*Scopolia* 9097  
*Solanum*, egg plant 10086  
*Solanum*, potato 497, 2265, 4330, 4354,  
 4789, 7317, 7329, 7334, 8284, 8298,  
 9778, 9782, 10689  
*Sorghum* 1186, 3145  
*Stevia* 5759, 5760  
*Thalictrum* 5758  
*Trifolium* 10662  
*Trifolium*, minor species 10676  
*Trifolium*, red clover 1258, 3282, 5230,  
 6262  
*Trifolium*, white clover 1258, 1285,  
 10674  
*Tripsacum* 9559  
*Triticum* 2816, 4857, 6930, 7928, 7931  
*Undaria* 4771  
*Vaccinium* 4504  
*Vigna*, cowpea 4696  
*Vigna*, minor species 2662  
*Vitis* 775, 5498, 9166  
*Zea*, maize 1127, 1976, 2008, 3077, 4038,  
 4042, 4043, 6039, 6040, 7053, 8043,  
 9559, 10464

Tobacco (see *Nicotiana*)

## Tolyposporium

- Pennisetum* 2793  
*Sorghum* 7127

Tomato (see *Lycopersicon*)Toria (see *Brassica*, oil crops)Townsville lucerne (see *Stylosanthes*)

## Toxic soils

- Agropyron* 7869  
*Agrostis* 2184, 9726, 9727  
*Anthoxanthum* 4246  
 cereals 10235  
*Coronilla* 3300  
*Deschampsia* 4246  
*Festuca* 2184, 10642  
*Glycine* 6776, 9315, 9316, 10251, 11162  
*Gossypium* 3361, 9818, 10719  
*Manihot* 4422, 6393  
*Medicago* 3248  
*Oryza* 1632, 3166, 3831, 5098, 8156,  
 8157, 8170, 8193  
*Panicum* 6110  
 pulses 10235  
*Secale* 1890, 7869  
*Secale* × *Triticum*, triticales 1890, 5836,  
 7869  
*Sorghum* 8146  
*Triticum* 1755, 1890, 2850, 2959, 5835,  
 7869, 7887, 10251  
*Vigna*, cowpea 11111  
*Zea*, maize 8044

## Trachyspermum

- combining ability 9340  
 yield components 11197  
 heritability 2769  
 yield components 11197  
 heterosis 9340  
 inbreeding 2769  
 multivariate analysis 2770  
 yield components 2770, 11197

## Transduction, review 1611

## Transformation 1, 1620, 2777, 8664, 9392

- Agrobacterium* 5788  
*Citrus* 2501  
 crop plants 5788, 5790, 9395  
*Glycine* 1583  
*Gossypium* 9000  
*Hordeum* 5026  
*Nicotiana* 6401, 10777  
*Oryza* 2136  
*Petunia* 1612  
 review 1611

## Transgression (see Recombination)

Transitory yellowing, *Brassica*, Chinese

- cabbage 4619

## Translocation, chromosome (see Chromosome translocation)

## Translocation, physiological

- Beta*, sugar beet 2340, 2344  
 crop plants 9379  
*Eleusine* 3138  
*Glycine* 11151  
*Gossypium* 2308  
*Ipomoea* 5272  
*Oryza* 2129, 3190, 6171  
*Psophocarpus* 6805  
*Saccharum* 1362  
*Triticum* 1747, 1807  
*Zea*, maize 260, 1968, 1970, 3041, 7047,  
 8811, 8815

## Transpiration (see Water balance)

## Transporting quality (see Mechanical injury)

Tranzschelia, *Prunus*, plum 669

## Trialeurodes

- Cucumis*, cucumber 9413  
*Lycopersicon* 10978

## Tribolium

- Secale* × *Triticum*, triticales 5954  
*Sorghum* 8145  
*Triticum* 2985

## Trichloris

- inbreeding 5205  
 yield components 5204, 5205

## Trichoderma

- Capsicum* 8380  
*Zea*, maize 9589

Trichoplusia, *Brassica*, cauliflower 3684

## Trichosanthes

- flowering 5616  
 fruit, size 2633  
 germination 2633  
 history and evolution 2633  
 hybridization, interspecific 2633  
 leaf 2633  
 meiosis 2633  
 pollen 5616  
 sterility and fertility 2633  
 taxonomy 2633  
 varieties, India 5614

## Trifolieae

- chemicals, as plant constituents,  
 chromatin 8250  
 history and evolution 8250

## Trifolium

- annual habit 4292  
 anther 10669  
 cell culture 10662  
 chromosomes, number 3861, 4292, 10669  
 climate 4292  
 development and growth 7291  
 embryo culture 5207  
 geography 4292  
 history and evolution 10669  
 hybridization, interspecific 5207, 7290  
 perennial habit 4292  
 pollination 4292  
 pollination, technique 7290  
 polyploidy 7290, 10669  
 root 4292  
 sterility and fertility 7290  
 tissue culture 10662  
 varieties, Switzerland 3207

## Trifolium, Alsike clover

- cell culture 10670  
 embryo culture 9753  
 hybridization, interspecific 9753, 10670  
 viruses 10670

## Trifolium, Alsike clover × Trifolium, minor species

- embryo 1276  
 endosperm 1276  
 hybridization, interspecific 1276, 6265  
 sterility and fertility 1276

## Trifolium, Alsike clover × Trifolium, white clover

- embryo 1276  
 endosperm 1276  
 hybridization, interspecific 1276  
 sterility and fertility 1276

## Trifolium, crimson clover

- chemicals, as nutrients, nitrogen 7301  
 nitrogen fixation 7301  
*Rhizobium* 7301

## Trifolium, minor species

- breeding  
 Canada 3288



**Trifolium, minor species contd.**  
breeding contd.

German Federal Republic 2240  
cell culture 10670, 10676  
chromosomes, number 1286, 9718  
genetic resources 2241  
growth period 9756  
hard seed 4300  
hybridization, interspecific 10670  
light, effect of 4297  
polymorphism 4301  
protoplasts 10676  
quality, for nutrition 3209  
seed 4297  
seed, number 4297  
seed production 9756  
selection, artificial 3209  
taxonomy 1286  
temperature, effect of 4300  
tissue culture 10676  
varieties

Australia 9756  
Switzerland 7300  
variety trials, Switzerland 7300  
viruses 10670  
waterlogging 9756

**Trifolium, minor species × Trifolium,****Alsike clover**

chromosomes, number 6265  
embryo culture 6265  
hybridization, interspecific 1276, 6265

**Trifolium, minor species × Trifolium, white clover**

embryo 1276  
endosperm 1276  
hybridization, interspecific 1276  
sterility and fertility 1276

**Trifolium, red clover****Apis** 1257**breeding**

USA 6260  
USSR 10649  
cell culture 3282, 3283  
chemicals, as nutrients, nitrogen 3277  
chemicals, as plant constituents  
carboxypeptidase 8692  
chymotrypsin 8692  
estrogens 1259  
formononetin 3279, 6261, 7295  
nitrate 1259  
papain 8692  
protein 459  
saponins 1259  
sugar 461, 1279, 2233  
chemicals, general effects  
*Festuca* extract 9737  
phorate 6259  
cold resistance 461, 10671, 10672  
combining ability 7296  
density of stand 2232, 5229  
development and growth 5227  
digestibility 4277  
*Ditylenchus* 1282, 6264  
*Erysiphe* 1282, 3285, 6260  
flower, size 1257  
foliage area 4277  
*Fusarium* 7296  
genetic resources 2179  
genetic variance 6262  
genetics

leaf 5228  
sterility, male 7294  
germination 1256, 7292, 9737  
growth period 2231, 5229, 9754  
habit 4277  
height 1278, 5229  
heritability 3284, 5226, 5228, 5230  
hybrid varieties, technique 3280  
inbreeding 3280, 5226, 9755  
inflorescence, size 9754  
insects 6259  
*Kabatiella* 1282, 2236, 6260  
leaf, number 1278, 10671  
leaf, shape 1278  
leaf, size 5228, 9754  
mechanical injury 1256  
meiosis 7294  
mixtures of crops or genotypes 10672  
mowing and cutting 2234  
nectar 1257, 2233  
nitrogen fixation 3277  
pathology 8957  
persistence 1256, 5227, 5229

**Trifolium, red clover contd.**

photoperiodism 1278  
pollination 1257, 3281  
polyploidy 54, 458, 1279, 1280, 2231, 2232, 2233, 2235, 4294, 5229, 7292, 7293, 8957, 10672  
precipitation 5229  
quality, for nutrition 1259  
*Rhizobium*, physiological races 3277  
root 1281  
root, weight 461  
*Sclerotinia* 1282, 2235  
seed production 1280, 2234, 3284, 4293, 5228, 7292, 9754, 9755  
seed, weight 4277, 7292  
selection, artificial 461, 2232  
silage 10672  
*Stemphylium* 1283, 6260  
sterility and fertility 3284, 5226  
sterility, male 7294  
sterility, self 3280, 3281  
taxonomy 460  
temperature, effect of 8692  
tissue culture 1258, 3282, 5230, 6262  
*Uromyces* 1282, 6260  
varieties  
Australia 3279, 6261  
Canada 4294  
Czechoslovakia 3855  
Poland 54  
variety trials  
Austria 4811  
Czechoslovakia 2231, 4293  
Finland 10671  
viruses 1277, 1282, 3278, 8692

**Trifolium, subterranean clover**

chemicals, as plant constituents, formononetin 4299  
cold resistance 4298, 6267  
density of stand 6266  
development and growth 4298  
flowering 4299  
genotype × environmental interaction 7299  
growth period 3287, 4298, 4299, 5232  
habit 6266  
hard seed 4298, 4300  
heat and drought resistance 4298  
*Kabatiella* 3287, 6268, 7299  
light, effect of 4297  
mowing and cutting 6266  
outcrossing 5232  
seed 4297  
seed, number 4297, 4298  
soil pH 5232  
temperature, effect of 4299, 4300  
varieties, Australia 10675

**Trifolium, white clover**

breeding, Estonian SSR 4276  
cell culture 10670  
chemicals, as nutrients  
nitrogen 463, 1285, 3277, 8262  
phosphorus 8263  
chemicals, as plant constituents  
carbohydrates 7230  
cyanogenetic compounds 1284, 2239, 7273, 7297  
linamarase 2239, 7297, 7298  
linamarin 7298  
lotaustralin 7298  
nitrogenase 462  
protein 7230  
competition 1284, 7298, 8262  
*Cymadothea* 4296  
diallel analysis 5231  
digestibility 7230  
ecotypes 10624  
flowering 3286  
genetics  
cyanogenetic compounds 2239, 7297  
gynecium, number 10673  
linamarase 2239, 7297, 7298  
linamarin 7298  
lotaustralin 7298  
grazing 1284  
growth period 2237  
gynecium, number 10673  
heritability 5231  
insects 6259  
leaf, shape 2237  
leaf, size 7298, 8262

**Trifolium, white clover contd.**

mixtures of crops or genotypes 8223  
mowing and cutting 1284  
mutation 463, 7273  
mycorrhiza 8264  
nitrogen fixation 463, 1285, 3277  
palatability 7230  
phorate 6259  
polymorphism 7298  
polyploidy 1285  
population genetics 7297  
*Pseudopeziza* 4296  
quality, for nutrition 7230  
*Rhizobium* 463, 1285, 8265, 8266  
physiological races 3277  
*Rhizobium*, technique 463  
root 2239  
*Sclerotinia* 8261  
seed, number 5231  
seed production 7273  
seed, weight 5231  
seedlings 5231  
selection, natural 7297  
soil pH 8266  
sterility and fertility 10673  
storage of planting material 10674  
tissue culture 1258, 1285, 10674  
variation 4295, 4296  
varieties, Poland 54  
variety trials  
Czechoslovakia 2238  
New Zealand 414  
UK 8261  
viruses 1277, 3278, 10670  
**Trifolium, white clover × Trifolium, Alsike clover**, hybridization, interspecific 1276  
**Trifolium, white clover × Trifolium, minor species**, hybridization, interspecific 1276  
**Trigonella**  
aneuploidy 4315, 10682  
cell division 10681  
chemicals, as plant constituents  
acids 6278  
ascorbic acid 6278  
ash 6278  
cellulose 6278  
protein 8257  
sugar 6278  
tannin 6242  
chemicals, cytological effects  
ethyl methanesulphonate 8271  
MH 8271  
chromosomes, aberrations 10681  
chromosomes, accessory 3298  
chromosomes, morphology, technique 10681  
crossing over 4315  
γ rays 6276  
history and evolution 8257  
meiosis 4315, 10682  
nucleolus 10682  
pollen 2248  
polyploidy 4315, 6276  
seed 6242  
sterility and fertility 2248, 4315  
**Tripsacum**  
centres of origin or diversity 9580  
chemicals, as plant constituents  
nucleic acids 9581  
protein 7078  
digestibility 2015  
heritability 2015  
history and evolution 9580  
inflorescence 2015  
leaf, size 2015  
spikelets, number 2015  
taxonomy 7078, 9580  
tissue culture 9559  
viruses 4074  
**Tripsacum × Zea, maize**  
apomixis 4019, 10445  
centromere 1951  
chemicals, as plant constituents, protein 247, 248  
chromosome translocation 1951  
chromosomes, addition and substitution 9544  
chromosomes, morphology, technique 10446  
*Cochliobolus* 4019  
cold resistance 7049  
*Colletotrichum* 4019



***Tripsacum* × *Zea*, maize contd.**

- Fusarium* 4019
- hybridization, intergeneric 247, 248, 1951, 4019, 4023, 7049, 7078, 9544, 9580, 10444, 10445, 10446
- inflorescence, number 4019
- laser beams 10444
- meiosis 1951, 10445
- perennial habit 4019
- Puccinia* 4019
- Setosphaeria* 4019
- sterility and fertility 9580
- tillering 4019
- Trichometasphaeria* 4019
- Xanthomonas* 4019

***Trisetum***

- chemicals, as plant constituents, cholecalciferol derivatives 7272
- quality, for nutrition 431

***Triticale* (see *Secale* × *Triticum*, triticale)*****Triticum***

- Aceria* 7970
- agronomy 190
- Alternaria* 3963, 6976, 8760, 8761
- altitude 169, 3919, 9453
- amitosis 4857
- andrecium 1788, 2899
- andrecium, anatomy 6849
- aneuploidy 58, 133, 135, 178, 199, 201, 1778, 1781, 1782, 1783, 1785, 1786, 1792, 1795, 1796, 1802, 1852, 2884, 2895, 2903, 2904, 2906, 2915, 2916, 2922, 3911, 4844, 4857, 4865, 5845, 5847, 5865, 5866, 5867, 5869, 5871, 5879, 6942, 7892, 7893, 7895, 7896, 7901, 7916, 7917, 7942, 7963, 8725, 8727, 8736, 8748, 9387, 9471, 10298, 10309, 10381, 10385
- review 1071, 7852
- anther 13, 1015, 5890
- anther culture 1786, 1802, 2937, 3930, 3932, 3937, 8695, 8697, 8743, 8744
- apomixis 108, 2926
- asymmetry 9428
- asynapsis 7919, 8725
- awns 120, 127, 163, 1699, 3898, 4867, 4869, 6916, 6946, 7917, 8736, 8740, 8748, 9448, 10257
- awns, colour 1792, 2916
- Azotobacter* 6891
- back crossing 4852, 5889
- book 9435, 10259
- bracts, colour 201
- breeding 1779, 10268, 10270, 10273
  - Australia 1051, 6897, 8713, 10264
  - Finland 7821
  - German Democratic Republic 5772
  - German Federal Republic 4808, 7875
  - Hungary 8711, 9433
  - India 2854
    - book 9435
  - Iran 2854
  - Kazakh SSR 97, 98, 6904
  - Kenya 2854
  - Mali 1050
  - Mexico 2854
  - New Zealand 2871
  - Pakistan 2854, 5824, 6886
  - Portugal 10351
  - S. Korea 4802
  - symposium 1745
  - Syrian Arab Republic 2854
  - Turkey 2854
  - UK 1730, 8713
  - Ukrainian SSR 6903, 6971, 9421, 9430
  - USA 1049, 1089, 2986, 4835, 7876, 10341
    - review 6877
  - USSR 43, 99, 100, 101, 102, 1727, 2868, 2869, 2870, 2961, 3880, 3890, 3895, 4833, 4834, 6899, 6900, 8715, 8716, 9432, 10271, 10272, 10274, 10275, 10284, 10348
    - book 9429
- breeding, technique 1729, 2853, 6897, 9428, 9433, 10264
- canopy 1712, 8714
- cell culture 6953
- cell division 79, 1048
- cell inclusions 7940
- cell, size 10396
- centres of origin or diversity 1699, 1821
- Cephus* 6973, 8773, 9493

***Triticum* contd.**

- Cercospora* 1849
- Chaetocnema* 209
- chemicals, as nutrients
  - boron 188
  - calcium 4815
  - copper 3000
  - magnesium 4815
  - miscellaneous 152, 6890
  - molybdenum 10357
  - nitrate 6942, 10250
  - nitrogen 147, 1097, 1102, 1714, 1752, 1807, 1822, 1823, 2919, 2957, 2958, 3886, 3928, 3957, 5903, 5905, 6947, 6949, 6956, 6967, 7937, 8740
  - phosphorus 77, 147, 2938, 2958, 3865, 4815, 5884, 5904, 5905, 6947, 6967, 8740
  - potassium 112, 147, 2958, 5905, 6967, 8740
  - silicates 7952
  - trace elements 7952
  - zinc 3000
- chemicals, as plant constituents
  - ABA 1101, 1709, 7890, 7934
  - acid phosphatase 133
  - adenosine triphosphate 5886
  - alanine 6955
  - albumin 1091
  - alcohol dehydrogenase 1087, 4845, 8950, 10303
  - alkanes 2915
  - aminoacids 1102, 3963, 4848, 6955, 6958, 7930
  - aminoacids, sulphur 10338
  - amylase 2909, 10332
  - amylase, technique 10324
  - $\alpha$ -amylase 148, 1076, 1754, 1872, 3927, 3951, 4858, 5914, 6911, 6965, 7889, 7934
  - $\alpha$ -amylase, technique 1079, 10321
  - $\beta$ -amylase 8950
  - arginine 1102, 6955
  - asparagine 6955
  - auxins 4864
  - calcium 1081, 4832
  - carbohydrates 1827
  - carbon 10335
  - carotenoids 143, 174, 7953
  - catalase 2909, 3921, 5914
  - chlorophyll 143, 174, 1802, 4864, 7895, 7896, 7953, 10245, 10329
  - o*-coumaric acid 8745
  - deoxyribonuclease 7932, 7933
  - enzymes 1092, 3955
  - esterase 185, 1086, 6964
  - flavanols 148
  - GA 1709, 1756, 4864
  - galactose 1095
  - gliadin 133, 181, 1091, 1764, 1800, 2945, 3937, 3941, 4825, 6925, 6959, 6961, 7903, 7924, 7926, 7943, 7946, 8746, 9446, 10323, 10344
  - gliadin, technique 1742, 10322, 10340
  - glucose-6-phosphate dehydrogenase 7939
  - glutamate oxaloacetate transaminase 1816
  - gluten 133, 150, 163, 1092, 1093, 1816, 2948, 3947, 5841, 5897, 6917, 6925, 6960, 7881, 7929, 7943, 7944, 7945, 8740, 8749, 8751, 10302, 10344, 10353
  - gluten, technique 10352
  - glutenin 90, 181, 4875, 4876, 5901, 6960, 7943
  - glycolate oxidase 146
  - growth regulators 171
  - hemicellulose 1827
  - heterochromatin 137
  - histidine 1102
  - hydroxamic acid 6987
  - iron 1081, 1090
  - isoleucine 6955
  - leucine 10338
  - leucine aminopeptidase 1086
  - lignin 1827
  - linoleic acid 112
  - linolenic acid 112
  - lipids 1095

***Triticum* contd.**

- chemicals, as plant constituents contd.
  - lysine 223, 1025, 1090, 1102, 1718, 2954, 3942, 4848, 4866, 4879, 4880, 4881, 6871, 6908, 6955, 7904, 8702, 8710, 9426, 9468, 10338, 10341, 10345
  - lysine, technique 1039, 3885, 8700
  - magnesium 1081
  - maltose 7941
  - methionine 6871, 10338
  - minerals 3952
  - nitrate reductase 111, 5882, 6942, 7939
  - nitrogen 85, 1091, 1816, 2919, 2957, 3963, 4881, 5871, 5880, 6926, 6951, 6958
  - nucleic acids 114, 1066, 1070, 2804, 2919, 3910, 3918, 4824, 5806, 5850, 5866, 6965, 6969, 8729, 10243, 10261, 10327
  - oil, fatty 9468
  - pectin 1827, 4832
  - pentosans 1092
  - peroxidase 133, 1086, 1791, 1851, 2909, 5852, 5909, 5913, 5914, 6936
  - phenols 1838, 2977, 3963
  - phosphatase 2804, 5904, 7932, 7933
  - phosphate 7934
  - phosphatidic acid 5814
  - phosphatidyl glycerol 112
  - phosphatidylcholine 112, 5814
  - phosphatidylethanolamine 112
  - phosphodiesterase 7932, 7933
  - phosphoglucose isomerase 10290
  - phosphoglyceromutase 1816
  - phosphorus 1081, 5910
  - phytic acid 1081
  - phytoalexins 6983
  - pigments 5870
  - polyphenol oxidase 1078
  - prolamin 6923
  - proline 6955, 9480
  - protease 2909, 7939
  - protein 85, 87, 133, 141, 145, 150, 182, 183, 184, 223, 1022, 1025, 1029, 1060, 1089, 1090, 1091, 1093, 1095, 1100, 1709, 1718, 1741, 1765, 1792, 1809, 1810, 1812, 1815, 1818, 2850, 2882, 2883, 2890, 2909, 2919, 2945, 2948, 2949, 2952, 2953, 2954, 2955, 2957, 3877, 3889, 3916, 3938, 3945, 3951, 3952, 4844, 4847, 4866, 4869, 4870, 4878, 4880, 4881, 4900, 5812, 5826, 5828, 5833, 5848, 5894, 5903, 5913, 5914, 6871, 6908, 6923, 6926, 6934, 6956, 6957, 6963, 7904, 7911, 7912, 7913, 7929, 7939, 7940, 7941, 7942, 7944, 7984, 8702, 8710, 8749, 8754, 9426, 9431, 9448, 9467, 9468, 9473, 9474, 9477, 10302, 10304, 10337, 10338, 10339, 10341, 10345, 10353
    - symposium 1088
  - protein, technique 76, 1039, 1094, 1096, 1811, 3885, 3943, 3950, 4874, 4877, 4882, 5898, 5900, 8700
  - quinones 8699
  - ribonuclease 7932, 7933
  - ribulose 1,5-diphosphate carboxylase 10262
  - silica 4832
  - starch 79, 1812, 3963, 4872, 5828, 6944, 8668
  - starch, technique 4883
  - sucrose 3938
  - sugar 3963, 6944, 6951
  - sugars, reducing 7934
  - sulphydryl compounds 3921
  - syringic acid 8745
  - threonine 10338
  - trypsin inhibitor 9482
  - tryptophan 1090, 2954, 6871, 10338
  - tyrosinase 1792
  - tyrosine 6955
  - vitamins 5831
  - wax 1856, 2915
  - zearalenone 10492
  - zinc 1081
- chemicals, cytological effects
  - actinomycin D 58
  - aminoacids 58
  - antioxidants 3917



*Triticum contd.*

- chemicals, cytological effects *contd.*  
 azide, sodium 8685  
 caffeine 2902  
 colchicine 58, 4855  
 DMSO 4855  
 mitomycin C 58  
*N*-nitroso-*N*-ethylurea 176  
*N*-nitroso-*N*-methylurea 7920, 8685  
 parathion-methyl 2907  
*Tanacetum* extract 3882
- chemicals, fertility and sex, effects  
 ABA 3923  
 acridine 5890  
 ethephon 1063, 5877  
 GA 3923  
 gametocides 6952
- chemicals, general effects  
 aluminium 1115, 1755, 1890, 2850,  
 2959, 3865, 4815, 5835, 6907, 7869,  
 7887, 10251  
 aluminium, technique 10361  
 atrazine 2863  
 barban 6984  
 chlormequat 4871, 5811  
*o*-coumaric acid 8745  
 dicamba 2984  
 difenzoquat 207, 2983, 2984, 6984  
 diuron 200  
 ethephon 5877  
 ethyl methanesulphonate 166  
 GA 1758, 4871, 4903, 7934, 9471,  
 10277, 10355  
 herbicides 7967, 7968  
 imazalil 5887  
 manganese 10251  
 MCPA 2984  
 nitrite 8745  
 nitrofen 1105  
 patulin 10359  
*Schizaphis* toxin 4917  
 surfactants 1870  
 syringic acid 8745  
 triadimefon 9437  
*Triticum* extract 8745
- chemicals, mutagenic effects  
 1,4-bisdiazoacetylbutane 4866, 8734  
 bromine 8737  
 chloroethylcyanoethylethylamine 9453  
 chloroethylcyanoethylmethylamine  
 9453  
 chromium 8737  
 copper 8737  
 diethyl sulphate 149  
 dimethyl sulphate 169, 206, 6922,  
 10311, 10312  
 ethyl methanesulphonate 128, 1068,  
 1089, 1752, 1777, 1812, 2885, 2917,  
 2954, 5859, 5860, 5879, 6890, 8735  
 ethyleneimine 149, 169, 1068, 6922,  
 7927, 8734, 10312  
 hydroxylamine 1812  
 iodine 8737  
 isocinchomeric acid 171  
 K30 169  
 magnesium 8737  
 manganese 8737  
 molybdenum 8737  
 niacin 171, 195  
 nicotinamide 171  
*N*-nitroso-*N*-dimethylurea 4866, 10312  
*N*-nitroso-*N*-ethylurea 6922, 7926,  
 7927, 9453, 10311, 10312  
*N*-nitroso-*N*-methylbiuret 9453  
*N*-nitroso-*N*-methyl-*N*-nitrosoguanidine  
 4866  
*N*-nitroso-*N*-methylurea 169, 206,  
 1068, 1812, 1841, 4866, 4879, 6922,  
 7920, 8734, 9453, 10302, 10311  
 potassium 8737  
 zinc 8737
- chimeras 4857, 8736  
 chloroplasts 174, 1790, 1797, 3990, 7953,  
 8699, 9468  
 chloroplasts, size 1797  
 chromosome transfer 4813  
 chromosome translocation 108, 131, 132,  
 183, 1776, 1886, 2804, 4856, 5864,  
 7969, 9390, 10263  
 chromosomes, aberrations 136, 138,  
 1785, 1797, 2895, 2902, 2907, 3882,  
 3917, 5863, 7920, 7921, 8685, 10245

*Triticum contd.*

- chromosomes, addition and substitution  
 107, 132, 133, 164, 1781, 1782, 1886,  
 2804, 3001, 3904, 3966, 4844, 5872,  
 5899, 6923, 6924, 7852, 7892, 7907,  
 7915, 7969, 7970, 7972, 9387, 9389,  
 9390, 10265, 10336, 10531
- chromosomes, addition and substitution,  
 technique 7918
- chromosomes, morphology 125, 134,  
 137, 8738, 9450
- chromosomes, morphology, technique  
 1703, 1704
- chromosomes, number, technique 7914
- Claviceps*, physiological races 7955
- climate 1789, 10319
- Cochliobolus* 2850, 2883, 4893, 5841,  
 7873, 7881, 10369
- cold, effect of 3921
- cold resistance 91, 124, 164, 167, 177,  
 192, 195, 1700, 1805, 1825, 1826,  
 1841, 1842, 1844, 1845, 2860, 2962,  
 3904, 3921, 3958, 4834, 4842, 5814,  
 5842, 5913, 5914, 6920, 6972, 7892,  
 7954, 8723, 8737, 8757, 9421, 9481,  
 10252, 10274, 10304, 10305, 10312,  
 10362, 10364
- cold resistance, technique 1846, 5908,  
 5915, 6974, 6975, 10254
- combining ability 110, 113, 152, 1061,  
 1062, 1085, 1762, 1799, 2882, 2885,  
 2887, 2909, 2952, 2954, 3877, 3901,  
 3925, 4868, 4887, 5849, 5883, 5896,  
 6888, 6932, 10293
- Claviceps* 7955
- cold resistance 7892
- development and growth 9458, 10320
- germination 8726
- growth period 9461, 10291, 10320
- height 8726, 9463, 10291, 10320
- protein 9473
- root, length 10310
- root, weight 10310
- seed, number 10320
- spikelets, number 10320
- tillering 10320
- yield components 9463, 10291
- combining ability, technique, yield  
 components 9457
- competition 95, 6938, 7935, 10269,  
 10358
- composite varieties 2850, 4826, 6896
- computer programming 6950, 7894,  
 10340
- cytomixis 1785, 7864
- cytoplasm 13, 6901
- cytoplasmic inheritance 77, 107, 108,  
 109, 4856, 5844, 10257
- Leptosphaeria* 10368
- Puccinia* 7960
- density of stand 170, 223, 1074, 1748,  
 1765, 1822, 2910, 2935, 5876, 5881,  
 5902, 6895, 6927, 6938, 6967, 6968,  
 10313, 10354
- development and growth 79, 85, 147,  
 1707, 1760, 1845, 2912, 2921, 2931,  
 2933, 3926, 5886, 6936, 6947, 7923,  
 9458, 10320
- diallel analysis 110, 142, 152, 1799,  
 1808, 2882, 2898, 2952, 2959, 2975,  
 2976, 3877, 3898, 3922, 3925, 3935,  
 3939, 4887
- Puccinia* 9490
- digestibility 7868, 7984, 8702
- digestibility, technique 2951
- diploidy 1778
- dominance 152
- dormancy 142, 148, 1077, 1709, 1754,  
 1789, 1814, 2850, 3951, 6911, 7889,  
 9445, 9478
- dormancy, technique 1076, 3927, 10321
- electrical properties 164, 5912, 5915
- embryo culture 1801, 9470
- embryology 2941
- endosperm 79, 1077, 2944, 3938, 4873
- endosperm, texture 5900, 6956
- environment 169, 6949, 8700
- epistasis 8712, 9466, 10316
- Eriophyes* 4919

*Triticum contd.*

- Erysiphe* 111, 198, 199, 1841, 1847,  
 2881, 2883, 2964, 2967, 3877, 3911,  
 3959, 4829, 4889, 4898, 5819, 5834,  
 5838, 5840, 5842, 5865, 5916, 5921,  
 6912, 6915, 6973, 7821, 7879, 7883,  
 7902, 7909, 7956, 8706, 8710, 8723,  
 8755, 8762, 9440, 9441, 9445, 10257,  
 10276, 10375, 10377, 10378, 10379
- physiological races 4894, 5925, 6979,  
 7957, 7958, 8763, 10376
- Brazil 2968
- Canada 4838
- Czechoslovakia 3967
- USSR 5926
- Yugoslavia 2966
- experimental designs 1731, 2867, 2876,  
 5832, 8712
- fertilization, sexual 2892, 2941
- flower, number 119
- flowering 1793, 3920, 6943, 10267
- review 62
- fluorescence 5911
- foliage area 1748, 2921, 2935, 6937
- forage 7984
- fungi 197, 1724, 3962, 8706, 10253
- review 196
- fungi, technique 6883
- Fusarium* 1103, 1848, 4890, 4897, 5924,  
 6978
- $\gamma$  rays 145, 149, 169, 177, 178, 1718,  
 1812, 2917, 4840, 4872, 5858, 5859,  
 5863, 6890, 7879, 7910, 7921, 8736
- Gaeumannomyces* 2965, 3961, 4896
- gene dosage 7926, 9446
- phosphoglucose isomerase 10290
- gene interaction 152, 1809, 3939
- gene location 133, 199, 201, 1080, 1792,  
 1795, 1796, 1852, 2804, 2883, 2884,  
 2888, 2916, 2922, 4844, 4845, 4875,  
 4876, 5845, 5847, 5865, 5869, 5871,  
 5879, 5901, 7936, 7963, 9387, 9471
- alcohol dehydrogenase 8950
- $\beta$ -amylase 8950
- awns 7917, 8748
- chlorophyll 7895, 7896
- cold resistance 7892
- gliadin 9446
- growth period 8727
- height 8727
- inflorescence, length 8727
- meiosis 8725
- nucleic acids 10243
- phosphoglucose isomerase 10290
- protein 7911, 7942
- Puccinia* 10381
- stem 7893
- sterility, male 7886, 7901
- sterility, male, cytoplasmic 10336
- tillering 8727
- yield components 7917
- genetic resources 1699, 1728, 1733, 3875,  
 4836, 6898, 10260
- genetic resources, technique 10279
- genetic variance 4868, 5846, 5873, 5883,  
 5895, 5896, 5897, 5906, 6932, 6963,  
 8730
- alanine 6955
- aminoacids 6955
- arginine 6955
- asparagine 6955
- cold resistance 7892
- development and growth 9458, 10320
- germination 8726
- growth period 9461, 10320
- height 8712, 8726, 9469, 10317, 10320
- inflorescence, number 10316
- isoleucine 6955
- lysine 6955
- proline 6955
- protein 8754
- quality, for milling and baking 6955,  
 8754
- seed, number 10316, 10320
- seed, weight 8754, 10316
- spikelets, number 10320
- tillering 10320
- tyrosine 6955
- yield components 7898, 8712, 8732,  
 9460, 9469, 10291, 10317, 10354
- genetics
- alcohol dehydrogenase 4845, 10303
- aluminium 1755, 7887



*Triticum* contd.

## genetics contd.

- asynapsis 7919
- awns 6916, 8748
- bracts, colour 201
- chlorophyll 7895, 7896
- Cochliobolus* 2883
- enzymes 3955
- Erysiphe* 111, 199, 2883, 2966, 3959, 5925, 5926, 6979, 7902, 7956, 7957, 7958
- esterase 6964
- flowering 6943
  - review 62, 10267
- GA 1756, 1758, 9471, 10277
- gliadin 9446
- glucose-6-phosphate dehydrogenase 7939
- glutenin 4876, 5901
- growth period 95, 9461
- hairs 2883, 6916
- height 95, 111, 112, 160, 1080, 1756, 1758, 3922, 3936, 4868, 4884, 5879, 8776, 7891, 7934, 8741, 9466, 9471, 10277, 10318
- Heterodera* 8771
- hybrid chlorosis 1824, 2918
- hybrid necrosis 1824, 6916, 7947
- hybridization, intergeneric 5855
- inflorescence 4861, 5845
- inflorescence, shape 6902, 6916
- inflorescence, size 128
- internode, length 7891
- Leptosphaeria* 10371
- ligule 153, 7956
- Mayetiola* 111, 1106, 2883, 9494
- meiosis 2883, 3915, 7919, 8725, 9390
- nitrate reductase 111, 5882
- peroxidase 1791, 5852
- phosphoglucose isomerase 10290
- protein 2883, 4900, 10341
- Puccinia* 111, 200, 201, 205, 1698, 1829, 1831, 1832, 1833, 1834, 1836, 1851, 1852, 1853, 1857, 1858, 1860, 1861, 1863, 1864, 1865, 1866, 1869, 1871, 2879, 2883, 2888, 2971, 2972, 2975, 2978, 2979, 2980, 3877, 3959, 3971, 3975, 3978, 3979, 4900, 4901, 4905, 4907, 4910, 4911, 4912, 4914, 4915, 5821, 5843, 5928, 5929, 5931, 5932, 5933, 5934, 6910, 6981, 7959, 7960, 7961, 7962, 7963, 7965, 7966, 8767, 9485, 9491, 10381, 10385, 10386, 10388, 10389, 10390
- Schizaphis* 9492
- Schizaphis* toxin 4917
- seed, colour 142
- seed, number 2924
- seed, shape 128, 6916
- seed, texture 2883
- spikelets, number 6916
- spring and winter habit 7956
- stem 7893
- sterility and fertility 3909
- sterility, male 1794, 7886, 7901
- sterility, male, cytoplasmic 108, 2918, 5888, 5889, 10292
- symposium 1828, 1876
- Tilletia* 111
- vernalization 140, 6941, 7925
- viruses 7969
- yield components 1085
- genome analysis 185, 1070, 1780, 1784, 1791, 6923, 7903, 7911, 7912, 7913, 9495, 10261
- genotype  $\times$  environmental interaction 1059, 1081, 1089, 1702, 1762, 1765, 1889, 2886, 2934, 3877, 3931, 4846, 5832, 5853, 5885, 6889, 6934, 6935, 7889, 7899, 7923, 7950, 7961, 8730, 10319
- genotype  $\times$  environmental interaction, technique 6897
- geography 1789, 10315
- germination 1100, 2928, 3929, 3936, 6970, 7932, 7933, 8726, 9448
- germplasm banks
  - Poland 1663
  - Syrian Arab Republic 7844
- Gibberella* 1848, 4897, 6978, 8710, 10492
- Glomus* 160, 6951

*Triticum* contd.

- growth period 81, 95, 120, 144, 159, 161, 166, 1084, 1107, 1707, 1749, 1760, 1761, 1765, 1777, 1788, 1792, 1796, 1822, 1850, 2921, 2923, 2929, 2930, 2940, 3889, 3892, 3898, 3926, 3934, 3956, 4849, 4862, 4865, 5834, 5873, 5875, 5892, 5902, 6896, 6912, 6941, 7888, 7889, 7925, 7927, 8727, 8728, 9441, 9448, 9461, 10257, 10291, 10311, 10315, 10320, 10355, 10356
- gynecium 13
- habit 1107, 5870, 6927, 7922
- hairs 120, 1107, 1792, 2883, 2916, 2986, 4832, 4919, 6916, 8764, 8773
- haploidy 108, 1069, 1629, 2816, 2895, 2926, 3909, 3937, 4856, 4857, 5805, 8697, 9389
- Haplothrips* 6985
- harvest index 5876, 5881, 8694, 8714, 10330, 10337, 10356
- harvesting, mechanical 189
- heat and drought resistance 165, 191, 193, 1099, 1100, 1101, 1723, 1749, 2850, 3001, 4884, 4885, 4886, 5813, 5825, 5907, 5909, 5910, 5911, 6893, 6900, 6969, 7867, 7953, 8740, 9432, 9441, 9444, 9459, 9462, 10252, 10271, 10311, 10360, 10363, 10365
- heat and drought resistance, technique 1843, 5912, 6970, 8758, 9480
- heat, effect of 2971, 8734
- height 95, 101, 109, 111, 112, 119, 127, 128, 145, 147, 152, 159, 160, 161, 162, 163, 166, 170, 172, 177, 178, 180, 194, 1061, 1080, 1082, 1085, 1104, 1756, 1757, 1758, 1760, 1761, 1776, 1777, 1788, 1792, 1793, 1806, 1850, 2850, 2925, 2927, 2928, 2929, 2930, 2953, 2957, 2959, 3889, 3891, 3892, 3894, 3898, 3922, 3923, 3936, 4835, 4859, 4864, 4866, 4868, 4869, 4871, 4884, 5823, 5868, 5870, 5873, 5875, 5879, 5883, 5885, 5887, 5891, 6887, 6892, 6894, 6896, 6927, 6929, 6931, 6932, 6933, 6936, 6947, 6954, 7876, 7887, 7888, 7889, 7891, 7899, 7927, 7934, 7936, 7938, 8712, 8726, 8727, 8730, 8741, 8742, 8747, 8759, 9438, 9451, 9459, 9463, 9466, 9467, 9469, 9471, 10274, 10276, 10277, 10278, 10291, 10305, 10311, 10312, 10313, 10317, 10318, 10320, 10330, 10332, 10334, 10354, 10355, 10362
- review 6877
- height, technique 3924
- Helminthosporium* 4890
- heritability 141, 142, 1060, 1061, 1062, 1081, 1755, 1808, 1840, 2917, 2925, 3940, 3942, 4847, 4862, 4868, 5897, 5906, 5920, 6887, 6921
- ABA 7890
- aluminium 7887
- cold resistance 7892, 9481
- dormancy 7889
- germination 8726
- height 7887, 8726
- seed, weight 9465
- Septoria* 10366
- xylem 10331
- yield components 9460, 10354
- Heterodera* 208, 6885
- physiological races
  - Australia 8771
  - Europe 8771
  - USSR 10392
- heterosis 124, 161, 174, 1048, 1066, 1084, 1809, 2882, 2890, 2898, 3901, 3902, 3910, 3914, 3939, 4848, 5883, 6888, 6918, 6921, 6932, 6939, 6943, 6954, 7863, 7875
- cold resistance 9481
- harvest index 10330
- height 8742, 10330
- tillering 10330
- yield components 9463, 10317
- heterozygosis 1059, 1083, 10303
- history and evolution 14, 187, 1728, 1773, 1780, 1820, 4824, 4825, 4836, 5850, 6964, 6965, 6966, 7850, 7903, 7947, 7948, 8729, 8755, 8756, 9390, 9479, 9495, 10261, 10262

*Triticum* contd.

- history and evolution, technique 7852, 10340
- homozygosis 2926
- hybrid chlorosis 1824, 2918
- hybrid necrosis 1824, 6916, 7947, 10276
- hybrid varieties 1063, 2899, 7875
  - review 2893
- hybrid varieties, technique 5892
- hybridization 1678, 1803, 2944, 3903
- hybridization, intergeneric 4836, 7918, 9390
- hybridization, interspecific 107, 109, 119, 120, 121, 127, 169, 176, 199, 1067, 1771, 1780, 1813, 2892, 2903, 2904, 2918, 2932, 3877, 3911, 3915, 4836, 4849, 4852, 4861, 4870, 4873, 4917, 5845, 5862, 5867, 6865, 6917, 6920, 6937, 6943, 7902, 7903, 7904, 7905, 7909, 7919, 7954, 7955, 7960, 8684, 8719, 8742, 9448, 9449, 9466, 9501, 10295, 10298, 10304, 10346, 10368, 10394
- hybridization, wide 134
- Hymenula* 5917, 5918, 5919, 10373
- ideotype 10269, 10272, 10314
- immunology 7903
- inflorescence 119, 169, 176, 186, 1707, 1785, 1795, 2912, 4861, 5845, 5858, 6896, 6946, 7926, 8736, 8764, 10302
- inflorescence, colour 127, 9448
- inflorescence, length 8727, 8730
- inflorescence, number 1759, 5859, 8740, 10316
- inflorescence, shape 127, 2920, 6902, 6916
- inflorescence, size 128, 162, 1792, 2906, 2922, 3898, 7888
- inflorescence, weight 3933
- inhibitors 2884
- meiosis 10307
- insects 10393
- internode 6933
- internode, length 7891
- internode, number 109, 6933, 7936
- internode, size 109, 2884, 2927, 2928, 3924, 7936
- irrigation 152, 1081, 1753, 4862, 6912, 7952
- land races 7888
- laser beams 10333, 10334, 10396
- leaf 151, 1712, 1715, 2850, 4867, 5873
- leaf, anatomy 1750, 6929
- leaf, colour 1107
- leaf, length 7934
- leaf, number 6927, 6947, 8750, 10313
- leaf, size 128, 1101, 1107, 1713, 1753, 2804, 3898, 3933, 5870, 6927, 6929, 10313
- Leptosphaeria* 3891, 3960, 3964, 3966, 4887, 5823, 5920, 5924, 10368, 10371, 10372, 10374
- physiological races, USA 5922, 10367
- light, effect of 139, 163, 200, 1711, 1712, 2913, 3938, 4871, 10245, 10304, 10305, 10362
- ligule 153, 7956
- linkage 111, 201, 1106, 1860, 1865, 2883, 5852, 5901, 5934
- Erysiphe* 7956
- ligule 7956
- Puccinia* 7963
- spring and winter habit 7956
- lodging 93, 101, 159, 162, 178, 180, 194, 1827, 2929, 2961, 2962, 5834, 5835, 5841, 5891, 6912, 7082, 7882, 7884, 8706, 8723, 8747, 8759, 9421, 9448, 10271, 10276, 10302
- lodging, technique 2963
- luminescence 8758
- magnetism, effect of 5844
- maternal effects, nucleic acids 8729
- Mayetiola* 111, 2883, 5840, 5842, 6971, 6973, 6986, 7883, 8772, 9419, 10256
- physiological races 1106, 9494
- meiosis 58, 131, 132, 135, 138, 139, 1069, 1780, 1781, 1782, 1785, 2883, 2895, 2903, 2904, 2905, 2908, 3911, 3915, 4917, 5862, 6952, 7866, 7894, 7909, 7916, 7919, 7920, 7972, 8725, 9390, 10295, 10296, 10298, 10307, 10394
- Meromyza* 1107



*Triticum* contd.

*Metopolophium* 1098  
*Micronectriella* 3965  
 mitochondria 77, 3916, 7863  
 mitochondria, size 1797  
 mitotic recombination 131  
 mixoploidy 2937  
 mixtures of crops or genotypes 1729, 1762, 4816, 6934, 7850, 7950, 10269, 10358  
 modifiers 1080, 3922, 4861, 7893  
 molecular genetics 114, 1070, 4824, 5806, 5850, 8729, 10261, 10262  
 multiple alleles 1080, 1795, 3955  
 multiple genes 1080, 2918, 3922, 3971  
 multivariate analysis 1075, 4846, 4873, 5848, 5853, 5883, 7930, 9451, 10319  
 mutation 14, 129, 1729, 1779, 3915, 6865, 6889, 7919, 9431, 10306  
   alcohol dehydrogenase 10303  
   hairs 8764  
   meiosis 10296  
   sterility, male 7901  
   *Ustilago* 8764, 9484  
 mutation, induced 128, 130, 131, 138, 139, 144, 145, 149, 159, 163, 169, 177, 178, 183, 195, 206, 1029, 1068, 1085, 1678, 1718, 1777, 1778, 1785, 1797, 1812, 1841, 2885, 2901, 2917, 4840, 4853, 4854, 4866, 4872, 4879, 5858, 5859, 5860, 5861, 5879, 6890, 6922, 7846, 7879, 7886, 7910, 7920, 7921, 8723, 8734, 9453, 9454, 10293  
 awns 8736  
 chlorophyll 10245  
 cold resistance 8737, 10304, 10305, 10312, 10362  
 gluten 10302  
 growth period 10311  
 heat and drought resistance 10311  
 height 7927, 10305, 10311, 10312, 10362  
 inflorescence 7926, 8736, 10302  
 lodging 10302  
 meiosis 10307  
 protein 10302, 10304  
 quality, for milling and baking 8735  
 root, number 10311  
 seed, colour 8736  
 yield components 10311, 10312  
 mycorrhiza 160, 6951  
 neutrons 149, 4853, 7969  
 nondisjunction 2905  
 nucleolus 3918, 5866  
 nucleolus, size 10396  
 nucleus 6901, 7866  
 nucleus, size 10396  
*Oscinella* 209, 6973, 10253  
*Oulema* 2986, 4832, 4918, 6973, 8773  
 outcrossing 1059, 1083, 3920  
 ovule, size 5809  
 parenchyma 6929  
 pathology 3867, 9421  
 photoperiodism 95, 1080, 2913, 3862, 6941, 7923, 8750, 9467, 10315  
 photorespiration 143, 1715  
 photosynthesis 143, 174, 175, 198, 200, 1711, 1712, 1723, 1747, 1748, 1750, 1790, 2921, 2931, 3001, 4864, 5870, 6944, 7953, 9456  
 photosynthesis, technique 6946  
 plant introduction, to Upper Volta 9434  
 pleiotropy 1085, 6868, 6916, 8764, 10277  
 pollen 6952, 7886, 9408, 9424, 9470, 10333  
 pollen, number 2899  
 pollen, size, technique 6881  
 pollen, technique 5810  
 pollination 3919  
 polyembryony and twinning 108, 1069  
 polyploidy 1059, 1746, 1778, 1786, 1820, 2903, 2904, 2937, 3877, 4852, 6881, 6901, 6964, 7850, 7852, 9408, 10331  
 precipitation 7950  
 protoplasts 1844  
*Pseudocercospora* 2861, 4828, 4895, 6915, 6977, 7885, 10370  
 physiological races 4827, 5817, 5818

*Triticum* contd.

*Puccinia* 111, 144, 161, 200, 201, 202, 204, 206, 1688, 1777, 1830, 1836, 1837, 1847, 1851, 1852, 1855, 1856, 1857, 1869, 1870, 2850, 2879, 2881, 2883, 2888, 2962, 2972, 2974, 2975, 2976, 2981, 2982, 3911, 3959, 3962, 3970, 3971, 3972, 3974, 3976, 3977, 3979, 4826, 4870, 4888, 4889, 4890, 4899, 4901, 4902, 4903, 4904, 4906, 4907, 4908, 4909, 4913, 4914, 4916, 5834, 5835, 5838, 5839, 5842, 5843, 5865, 5889, 5916, 5921, 5928, 5932, 5936, 6907, 6910, 6911, 6912, 6915, 6973, 6980, 6982, 6983, 7082, 7879, 7881, 7882, 7883, 7884, 7902, 7909, 7963, 7964, 8706, 8710, 8723, 8766, 8768, 8770, 9374, 9440, 9441, 9487, 9488, 9489, 9490, 10257, 10266, 10271, 10276, 10278, 10287, 10382, 10383, 10385, 10388  
   book 5929  
   physiological races 205, 1695, 1698, 1743, 1831, 1832, 1868, 1871, 2964, 2971, 2977, 2979, 2980, 3973, 4894, 4900, 4905, 4912, 4915, 5929, 5930, 5931, 5934, 6896, 6913, 7885, 7959, 7960, 7961, 7962, 7966, 9427, 10389  
   Bulgaria 1861  
   Canada 1833, 1858, 4838, 5821, 5933, 6884, 9491  
   Chile 7910  
   Czechoslovakia 4911  
   India 1829, 1834, 1853, 1854, 1863, 1864, 1867, 3968, 3969, 3975, 3978, 6981, 7965, 8765, 8769, 9485, 9486, 10381  
   Italy 1860, 1865, 1866, 3877  
   Portugal 4910  
   Romania 1862, 8767  
   Ukrainian SSR 1859, 10391  
   USA 1833, 2973, 10387  
   USSR 2978, 10386, 10390  
   physiological races, technique 9491  
*Puccinia*, technique 5935  
*Pyrenophora*  
   physiological races  
     Canada 5923  
     USA 5923  
*Pythium* 3965  
 quality 4873  
 quality, for cooking 2943  
 quality, for cooking, technique 3947, 10344  
 quality, for food processing 1743, 2946, 3941, 5893, 7880, 7946, 9449, 9476, 10346, 10351  
 quality, for milling and baking 90, 176, 181, 1055, 1092, 1093, 1095, 1734, 1741, 1777, 1810, 1812, 1813, 1814, 1817, 1818, 1819, 2874, 2876, 2879, 2929, 2943, 2947, 2950, 2953, 2954, 3944, 3945, 3946, 3948, 3949, 4869, 4872, 4875, 4877, 4878, 5801, 5826, 5827, 5830, 5859, 5895, 5896, 5897, 5899, 5901, 5903, 6913, 6955, 6960, 7821, 7884, 7904, 7941, 7943, 7944, 7967, 7968, 8723, 8735, 8740, 8749, 8751, 8753, 8754, 9389, 9425, 9434, 9441, 9448, 9474, 9475, 9477, 9478, 10346, 10348, 10349, 10350, 10353  
 quality, for milling and baking, technique 2944, 2945, 2955, 4882, 4883, 5785, 5900, 6962, 7945, 8752, 9472, 10342, 10343, 10347, 10352  
 quality, for nutrition 1717, 7984, 8702, 10338  
 quality, for storage 2948  
 radiation 1778, 1785, 1797, 1820, 2901, 4854, 5861  
 reciprocal effects  
   gluten 8751  
   height 8741, 9463  
 recombination 58, 74, 119, 126, 131, 176, 177, 178, 1059, 2937, 5901, 9389  
 reflectance 4822, 7870  
 respiration 77, 1713, 7863, 7937  
 rhizosphere 6891, 10335  
*Rhopalosiphum* 2988, 10255, 10258  
*Rhynchosporium* 5820  
 ripening 1754  
 root 2914, 3928, 5844, 7867, 9459, 10335

*Triticum* contd.

root, anatomy 10331  
 root, length 10310  
 root, number 1746, 2920, 6945, 10311  
 root, size 1749, 1755, 1890, 4896, 6945  
 root, weight 5904, 10310  
 salinity 68, 2960, 5791, 5829, 5906, 6875, 6900, 6953, 8726, 8780  
*Schizaphis* 4917, 6987, 9492, 10257  
 sclerenchyma 6929  
 seed 1713, 2919, 5848  
 seed, colour 142, 148, 1077, 1754, 1814, 7889, 8736, 9448  
 seed, number 81, 156, 157, 1714, 1756, 2885, 2922, 2924, 3883, 3889, 3938, 5869, 6888, 6921, 6947, 6948, 9465, 10316, 10320  
 seed production 1744, 3920  
 seed, shape 128, 2944, 4873, 6916, 9448  
 seed, size 1752, 1756, 1792, 1856, 2934, 4880, 4900, 5875, 6896, 6917, 6956, 7904, 9448  
 seed, texture 2883  
 seed, weight 79, 85, 1098, 1714, 1746, 1752, 1792, 1806, 1856, 2885, 2931, 3935, 3939, 3966, 3970, 3976, 4872, 4881, 4913, 5828, 5874, 5875, 5920, 6892, 6928, 6948, 7904, 8754, 9431, 9465, 9467, 9478, 10257, 10313, 10316  
 seedlings 1776, 2928, 3921, 4871, 6975, 10248  
 seedlings, weight 5886  
 selection, artificial 96, 1052, 1731, 2866, 3889, 3893, 3894, 5875, 8714, 10269, 10277, 10331  
 selection, natural 1699, 5875, 7935  
*Septoria* 1102, 1850, 3877, 3964, 4891, 5820, 7884, 8710, 10366  
 shade 165  
 shedding 9445  
*Sitobion* 1098, 2865, 10257  
*Sitobion*, technique 5937  
*Sitophilus* 1840, 1872  
 size 3965  
 snow mould, unspecified 1841  
 soil compaction 7949  
 soil pH 3864, 5905  
 sowing 1823  
 sowing and planting date 1726, 1760, 1765, 1849, 2935, 3930, 3965, 5808, 6967, 6968, 7950, 7951, 7964, 9467, 10315  
 spikelets 151, 5845  
 spikelets, colour 6925  
 spikelets, number 1753, 2922, 3938, 6916, 6936, 8750, 10320  
 spikelets, shape 9448  
 spring and winter habit 155, 159, 167, 168, 1082, 1793, 1796, 1805, 1809, 2853, 2940, 3930, 4863, 5808, 5845, 6931, 6954, 7925, 7932, 7933, 7938, 7956, 8728, 10315, 10325  
 stability 155, 1753, 1763, 2886, 5853, 6912, 6934, 6935, 7899, 7900, 7964, 8731, 9469, 10294  
 stem 194, 3898, 7893, 8759  
 stem, anatomy 6929, 6977  
 stem, number 1752  
 stem, size 2906, 6927, 6929  
 stem, weight 1751, 6927  
 sterility and fertility 120, 121, 138, 1771, 1793, 2892, 2895, 2937, 3909, 3919, 7903, 7905, 7909, 7915, 7972, 9448, 10298, 10333, 10394  
 sterility, male 163, 1015, 1794, 5890, 6849, 6952, 7886, 7901, 7952, 8668, 9390, 10295  
 review 1878  
 sterility, male, cytoplasmic 107, 108, 150, 156, 157, 173, 179, 1065, 1086, 1788, 1799, 2899, 2918, 2932, 2936, 2941, 2942, 3916, 3919, 4870, 5860, 5878, 5888, 5889, 6868, 6939, 7875, 8668, 10292, 10336  
 sterility, self 163  
 stomata 191  
 stomata, number 2931, 9408  
 stomata, size 9408  
 substitution lines 5847, 5866, 7963  
 succession, crop 1849  
 taxonomy 186, 187, 2956, 3953, 3955, 7905, 7948, 9479



**Triticum** *contd.*

- temperature, effect of 81, 91, 1080, 1102, 1712, 3932, 3956, 4865, 4909, 4915, 6936, 6941, 7923, 8725, 10382, 10383, 10385, 10390
- Tenebrio** 1872
- tillering 161, 163, 1104, 1756, 1757, 1792, 2912, 2914, 5880, 5887, 6888, 6896, 6921, 6936, 6938, 6945, 6947, 6948, 7929, 8727, 9455, 9465, 10271, 10313, 10320, 10326, 10330
- Tilletia** 111, 1841, 2970, 4892, 5837, 5927, 6911, 7885, 7902, 8707, 9374, 9440, 9482
- tissue culture 2816, 4857, 6930, 7928, 7931
- toxic soils 1755, 1890, 2850, 2959, 5835, 7869, 7887, 10251
- translocation, physiological 1747, 1807
- Tribolium** 2985
- Typhula** 3965
- Ustilago** 1104, 1838, 4888, 4889, 7902, 8703, 8764, 9482, 9483, 9484
- physiological races 2969
- USSR 10380
- variation 1744, 7888
- varieties 7846
- Australia 1055, 1056, 1057, 1058, 2879, 5843
- Austria 3854
- Bulgaria 7879
- Canada 105, 106, 4838, 4842, 6909, 6910, 6911, 7082
- Finland 7821
- France 1044, 9423
- Hungary 8723, 9454
- India 9442, 10287
- Italy 3877
- Japan 4839, 4840, 4841
- Kirgiz SSR 10283
- Moldavian SSR 9374
- New Zealand 4837
- Pakistan 5828
- Rhodesia 2813
- Romania 6912, 8722, 9443
- Sweden 2881, 6914, 9405, 9445, 10285
- Switzerland 1043, 1054, 2877, 2878, 6914, 10285
- UK 6915
- Ukrainian SSR 9420, 10289
- USA 104, 1743, 4843, 5837, 5838, 5839, 5840, 5841, 5842, 6913, 7880, 7881, 7882, 7883, 7884, 7885, 10286, 10288
- USSR 168, 4833, 8724, 9444, 10284
- varieties, classification 76, 1078, 1742, 1761, 1798, 1800, 1817, 2880, 3954, 4860, 5900, 7870, 7924, 10322, 10323, 10340
- varieties, technique 3856
- variety trials 6908, 8720, 8721
- Austria 4811
- Brazil 5835, 6907, 7878, 8717, 10280
- Chile 2872
- Dominican Republic 9439
- Ethiopia 1701
- Finland 8682
- France 1050
- Israel 8718
- Italy 1735, 1736, 1737, 1738, 1739, 1740, 1741, 2873, 3896
- Kazakh SSR 1700
- Morocco 7877
- New Zealand 1734, 2874, 2875
- Norway 9422
- Portugal 10281, 10282
- Romania 5834, 6906, 9437
- UK 5801, 5802, 5819, 5820, 5885
- Ukrainian SSR 9440
- USA 72, 103, 1042, 1053, 4821, 6905
- USSR 3897, 6879, 9436
- Uzbek SSR 8719
- Venezuela 9438
- variety trials, technique 189, 5774, 8693
- vascular tissue 1015, 5890, 6868, 6929
- vernalization 136, 140, 1842, 6941, 7925, 7932, 7933, 8728, 8750, 10315, 10325, 10355, 10356
- viruses 1098, 2987, 2988, 2989, 3130, 4919, 6988, 7883, 7910, 7969, 7970, 8703
- viruses, technique 5822

**Triticum** *contd.*

- water balance 91, 151, 172, 191, 193, 1099, 1101, 1723, 1753, 2804, 2938, 3001, 3929, 5813, 6970, 6978, 7890, 9462, 10360, 10365
- X rays 138, 177, 2902, 7921
- Xanthomonas**, technique 1839
- xylem 193, 10331
- yield 2804, 10268
- yield components 81, 96, 110, 124, 141, 145, 150, 158, 162, 166, 170, 175, 180, 204, 223, 1048, 1060, 1061, 1062, 1073, 1074, 1075, 1085, 1098, 1707, 1709, 1732, 1747, 1748, 1756, 1757, 1760, 1763, 1766, 1803, 1804, 1806, 1808, 1809, 1822, 2866, 2887, 2890, 2909, 2910, 2917, 2930, 2933, 2935, 2939, 2940, 3893, 3894, 3898, 3901, 3925, 3931, 3934, 3940, 4847, 4859, 4862, 4866, 5846, 5849, 5857, 5881, 5883, 5891, 5902, 6887, 6888, 6892, 6894, 6901, 6902, 6917, 6918, 6921, 6932, 6935, 6939, 6940, 6945, 6947, 6948, 6949, 6950, 6954, 7898, 7900, 7917, 7967, 8712, 8714, 8732, 8739, 8740, 8749, 9455, 9456, 9457, 9460, 9461, 9462, 9463, 9464, 9465, 9469, 10291, 10311, 10312, 10314, 10317, 10326, 10328, 10329, 10334, 10337, 10354, 10356, 10358
- Triticum** × **Aegilops**, hybridization, intergeneric 107, 108, 109, 126, 185, 1067, 1767, 1775, 1780, 1820, 1873, 1886, 3899, 3906, 3913, 3915, 4856, 5872, 6923, 7897, 7908, 7915, 7919, 7931, 7972, 8728, 9389, 9492, 10308, 10370, 10394
- Triticum** × **Agropyron**, hybridization, intergeneric 116, 117, 118, 122, 123, 125, 126, 154, 164, 203, 1064, 1072, 1770, 1772, 1776, 2860, 2891, 2894, 2895, 2896, 2903, 2904, 3904, 3908, 4850, 4851, 5854, 6865, 6923, 7969, 7970, 8733, 8735, 8950, 10307
- Triticum** × **Agropyron** × **Secale**, hybridization, intergeneric 10299
- Triticum** × **Elymus**, hybridization, intergeneric 115, 118, 125, 10244
- Triticum** × **Haynaldia**, hybridization, intergeneric 10300
- Triticum** × **Hordeum**, hybridization, intergeneric 1045, 1774, 2889, 2897, 3900, 3905, 3907, 3909, 5805, 5851, 6923, 6924, 7865, 7907, 9450, 9452, 10244, 10265, 10531
- Triticum** × **Hordeum** × **Secale**, hybridization, intergeneric 1768, 1769, 2889, 7906
- Triticum** × **Oryza**, hybridization, intergeneric 4196
- Triticum** - **Petroselinum**, chromosome transfer 4813
- Triticum** - **Petunia**, protoplast fusion 9447
- Triticum** × **Secale**, hybridization, intergeneric 13, 43, 58, 74, 76, 118, 121, 126, 132, 199, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 230, 1042, 1048, 1108, 1115, 1727, 1753, 1787, 1845, 1874, 1875, 1876, 1877, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1912, 2850, 2851, 2900, 2911, 2948, 2990, 2991, 2992, 2993, 2994, 2995, 2996, 2997, 2998, 2999, 3000, 3001, 3883, 3912, 3980, 3981, 3982, 3983, 3984, 3985, 3986, 3987, 3988, 3989, 3990, 4003, 4830, 4879, 4920, 4921, 4922, 4923, 5809, 5810, 5811, 5813, 5836, 5855, 5856, 5864, 5939, 5940, 5941, 5942, 5943, 5944, 5945, 5946, 5947, 5948, 5949, 5950, 5951, 5952, 5953, 6881, 6919, 6923, 6989, 6990, 6991, 6992, 6993, 6994, 6995, 6996, 6997, 6998, 6999, 7000, 7001, 7002, 7003, 7004, 7851, 7871, 7919, 7955, 7976, 7977, 7978, 7979, 7980, 7982, 7983, 7984, 7985, 7995, 8695, 8703, 8707, 8774, 8775, 8776, 8777, 8778, 8779, 8781,

- hybridization, intergeneric *contd.*
- hybridization, intergeneric *contd.*
- 9383, 9407, 9424, 9452, 9497, 9498, 9499, 9500, 9501, 9513, 10296, 10297, 10301, 10395, 10396, 10397, 10398, 10399, 10400, 10415

**Triticum** - **Zea**, maize, chromosome transfer 4813**Tropaeolum**

- genetic resources 6855
- germplasm banks, Peru 6855
- True seed**, **Solanum**, potato 7325
- Tryporyza**, **Oryza** 2172, 9699

**Tuber**

- Ipomoea** 10701
- Manihot** 3404
- Psophocarpus** 8631
- Solanum**, potato 8279
- Tuber**, colour
- Ipomoea** 2282
- Solanum**, potato 495, 7333, 9777, 9784, 9785
- Tuber**, number, **Solanum**, potato 4337, 8275, 9780, 10686
- Tuber**, shape, **Solanum**, potato 2262, 4337, 5254, 6311, 9785
- Tuber**, size, **Solanum**, potato 503, 4341, 8275, 9773
- Tuber**, weight
- Dioscorea** 5338
- Solanum**, potato 6309, 8282, 9780, 10686
- Turf** (see **Lawns** and **sports turf**)
- Turmeric** (see **Curcuma**)
- Turnip** (see **Brassica**, **turnip**)
- Twinning** (see **Polyembryony** and **twinning**)
- Tylenchorhynchus**, **Lycopersicon** 3720
- Typhula**

- Arctagrostis** 5201
- Calamagrostis** 5202
- Festuca** 10644
- Hordeum** 5054
- Phleum** 4257
- Poa** 6205
- Triticum** 3965

**Ulmus**

- Caratocystis** 3629
- physiological races 2571
- ecotypes 2563
- Gnomonia**, technique 10951
- hybridization, interspecific 4586
- mycoplasmas 3629
- pathology 7628
- photoperiodism 2563
- polymorphism 6564
- Ultraviolet rays**
- crop plants 64
- Glycine** 6755
- Lycopersicon** 894, 904, 2642, 4639, 10078
- Nicotiana** 4432
- Prunus**, almond 10873
- Prunus**, apricot 10873
- Prunus**, cherry 10873
- Prunus**, peach 10873
- Vitis** 774, 3615

**Uncinula**, **Vitis** 2554, 9168, 10016**Undaria**, tissue culture 4771**Urginea**

- chemicals, as plant constituents
- campesterol 9096
- sitosterol 9096
- stigmasterol 9096
- polyploidy 9096

**Urochloa**

- breeding, Australia 6236
- computer programming 5767
- germplasm banks, technique 5767
- multivariate analysis 5767

**Urocystis**, **Allium**, onion 4610**Uroleucon**, **Carthamus** 2428**Uromyces**

- genetics, **Phaseolus** 11105
- Manihot** 4796
- Medicago** 1274, 6251
- Phaseolus** 5648, 5853, 5855, 5857, 9296, 9297, 10098, 10100, 11091, 11092
- physiological races 6727, 11105
- Brazil 7748
- USA 11106
- physiological races, India 4679
- Pisum** 4679, 7789, 7790, 10178



**Uromyces contd.**

- Trifolium*, red clover 1282, 6260  
*Vicia*, broad bean 4664, 11087  
*Vigna*, cowpea 1637

**Ustilaginoides, Oryza** 1202, 1203**Ustilago**

- Avena* 1905, 5970  
*Echinochloa* 2073  
*Euchlaena* × *Zea*, maize 9545  
*Hordeum* 315, 316, 3127, 3128, 6079,  
 6107, 7116, 7117, 8077, 10519, 10524,  
 10525, 10554  
 physiological races 317, 8126  
 USSR 10553  
*Poa* 416, 6205  
*Saccharum* 2337, 3832, 5317, 6374,  
 6376, 8675, 10755, 10756, 10757  
*Secale* × *Triticum*, tritcale 8703  
*Triticum* 1104, 1838, 4888, 4889, 7902,  
 8703, 8764, 9482, 9483, 9484  
 physiological races 2969  
 USSR 10380  
*Zea*, maize 2009, 2010, 9520, 9529  
 physiological races 4070  
 Moldavian SSR 6064

**Ustilago, technique**

- Avena* 1905  
*Saccharum* 4408, 4412

**Vaccinium**

- chemicals, as plant constituents  
 chlorophyll 9985  
 wax 3596  
 chromosomes, number 3861  
 cold resistance 7590  
 flowering 4552  
 fruit, anatomy 3596  
 fruit, shape 3594  
 fruit, size 2527, 3595  
 fruit, weight 3594  
 germination 8428  
*Godronia* 3597  
 growth period 2527, 4552, 6533  
 heritability 753  
 heterosis 9985  
 hybrid chlorosis 9985  
 hybridization, interspecific 8427, 9985  
 leaf, shape 3594  
 leaf, size 3594  
 maternal effects 8427  
 pollination 6532, 6533, 10917  
 polyploidy 10917  
 quality, for fresh consumption 4552  
 rooting capacity 752  
*Sclerotinia* 2526  
 seed 3596  
 seed, number 3594, 3595  
 seed, size 3595, 8428  
 seed, weight 8428  
 sterility and fertility 6532, 6533, 8427,  
 10917  
 sterility, self 9985  
 stomata 3596  
 taxonomy 3596  
 tissue culture 4504  
 varieties  
 Canada 750  
 German Federal Republic 3593  
 USA 750, 751, 2526, 3593  
 yield 753

**Valerian (see Valeriana)****Valeriana**

- height 7526  
 heterosis 7526  
 hybridization, interspecific 7526  
 polyploidy 664, 7526  
 sterility and fertility 7526  
 taxonomy 664

**Variation** 9382

- Betula* 5525, 5526  
 crop plants 5735  
*Cydonia* 10855  
*Elaeis* 2429  
*Fagus* 2570  
*Fragaria* 6537  
*Glycine* 4722, 4731  
*Helianthus*, sunflower 9892  
*Larix* 2583  
 Leguminosae 10090  
*Leptosphaeria* 3960  
*Lotus* 5238  
*Malus* 10855  
*Oryza* 2842, 8912  
*Pennisetum* 4110

**Variation contd.**

- Picea* 3647  
*Pinus* 3640  
*Pisum* 10090  
*Poa* 9720  
*Populus* 6572  
*Psophocarpus* 4764, 8627, 8628, 8629,  
 8630  
*Pyricularia*, review 2170  
*Rubus* 2519  
*Solanum*, potato 7333  
*Trifolium*, white clover 4295, 4296  
*Triticum* 1744, 7888  
*Vicia* 10090  
*Vicia*, broad bean 2670, 2672, 2673,  
 5644  
*Zea*, maize 1997

**Variation, technique, crop plants** 59**Variation**

- Glycine* 2723  
*Pisum* 6782  
*Populus* 7630  
*Vitis* 6548

**Varieties**

- Actinidia*, Italy 6477  
*Agropyron*  
 Canada 6233  
 USSR 2183  
*Agrostis*  
 Czechoslovakia 3855  
 Poland 52  
*Allium*, garlic, Ukrainian SSR 7665  
*Allium*, onion  
 Belorussian SSR 5556  
 UK 8506, 9233, 10046, 10047, 10048  
 USA 8497  
*Allium*, shallot, USSR 9236  
*Ananas*, Venezuela 4558  
*Apium*  
 Belgium 7679  
 UK 8522, 10064  
*Arachis*  
 India 2437, 4481, 8372, 9077  
 Rhodesia 2813  
 S. Korea 3477  
 Senegal 7505  
 USA 6455  
*Arctagrostis*, USA 5201  
*Astragalus*, USA 5239  
*Avena*  
 Canada 3992  
 Denmark 6880  
 France 1044  
 Norway 9508  
 Rhodesia 2813  
 Sweden 6880, 9405  
 Switzerland 1043, 1111, 3207, 5960,  
 6880  
 UK 7831  
 Ukrainian SSR 9420  
 USA 4925, 4926  
 USSR 225, 9505

**Beta**, beetroot

- Japan 7656  
 Sweden 10043  
 USSR 4600, 9215

**Beta**, fodder beet

- Austria 3854  
 UK 9768

**Beta**, sugar beet, German Democratic Republic 10763**Brassica**, Brussels sprouts, UK 2812, 9245**Brassica**, cabbage, USA 851**Brassica**, cauliflower

- Sweden 10058  
 UK 8517, 9244  
 USA 1541

**Brassica**, Chinese cabbage, Japan 5587**Brassica**, kale

- Czechoslovakia 3855  
 USA 7672

**Brassica**, kohlrabi, Netherlands 480**Brassica**, rape

- Australia 1394  
 Denmark 8360  
 S. Korea 631  
 Sweden 9405

**Brassica**, swede

- New Zealand 4320  
 UK 9768, 9770

**Brassica**, turnip

- India 8273

**Varieties contd.****Brassica**, turnip contd.

- New Zealand 479  
 UK 8965, 9768  
 USA 851, 5244  
*Bromus*, USSR 2183, 5175  
*Calamagrostis*, USA 5202  
*Camellia*, India 2385, 2386, 9865

**Capsicum** 7846

- Albania 8378  
 Bulgaria 8377  
 Hungary 658  
 Romania 6465, 6466  
 USA 8495

**Carica**, India 9143**Carya**, USA 5507, 10019**Castanea**, USA 7619**Cicer**

- Australia 11184  
 India 2746, 11184

**Citrullus**

- Japan 3857  
 USA 4628

**Citrus**

- Australia 9960  
 Reunion 716  
*Citrus*, grapefruit, USA 9133  
*Citrus*, lemon, Georgian SSR 10216  
*Citrus*, lemon × *Poncirus*, Georgian SSR  
 10890

**Citrus**, mandarin

- Australia 9960  
 Georgian SSR 9969  
 USA 5456

**Citrus**, pomelo, Georgian SSR 9970**Citrus**, tangerine, USA 3575**Corylus**

- Azerbaijan SSR 787  
 Georgian SSR 9172  
 Greece 6476  
 Italy 6477  
 USA 10942

**crop plants** 294

- Finland 7829  
 German Federal Republic 5776  
 Netherlands 5775  
 Poland 51  
 USA 8494

**Cucumis**, cucumber

- Cuba 10070  
 Netherlands 5609  
 Sweden 10071  
 USSR 828, 10980

**Cucumis**, melon

- Taiwan 5606  
 USA 5602, 5603

**Cucurbita**

- Florida 4630  
 USA 8498

**Cydonia**, Ukrainian SSR 6495**Cynodon**, USA 3217, 3218, 5173**Dactylis**

- Czechoslovakia 3855  
 Poland 53  
 Switzerland 3207  
 USSR 2192

**Daucus**

- Sweden 7657  
 UK 9221, 9222, 10044  
 USA 831, 832, 833, 834, 835  
 USSR 9215

**Digitalis**, German Democratic Republic 9918, 10846**Diospyros**, Japan 3857**Eleagnus**, USA 4559**Eleusine**, India 3137**Elymus**, Canada 5200**Eragrostis**, USA 5198, 6232**Fagopyrum**, USSR 405, 4230**Festuca**

- Czechoslovakia 3855  
 Poland 52  
 Switzerland 3207  
 USA 4263, 5189, 5190

**Ficus**, Azerbaijan SSR 2465**Foeniculum**, India 2768**Fragaria**

- Azerbaijan SSR 8430  
 Canada 4555  
 India 3598  
 Italy 6477, 8429  
 Sweden 5414, 5417  
 UK 672, 10922



## Varieties contd.

*Fragaria* contd.

USA 3599, 4553, 4554, 5477, 5478,  
9145, 9990

*Fraxinus*, USA 4587*Glycine* 957

Algeria 959

Brazil 6752

Cuba 10136

France 960, 5675

Japan 3857

Kazakh SSR 10129

Mexico 9312

Rhodesia 2813

S. Korea 1579, 3746

USA 1580, 1581, 1582, 3747, 3748,  
3749, 3750, 3751, 5676, 5677, 5678,  
5679, 5680, 6753, 7762, 8597, 8598,  
11135

USSR 961, 4714, 10137

*Gossypium* 7846

Azerbaijan SSR 7374

China 5280

India 1339, 8304

Rhodesia 2813

USA 5281

USSR 8999

*Helianthus*, sunflower

Canada 4471

India 9067

Italy 6449

*Hibiscus*, India 560, 2320*Hordeum*

Australia 1146, 6076, 7085, 7087

Austria 3854

Bulgaria 294

Canada 4082, 4083, 6073, 6077, 6078,  
6079, 10524, 10525, 10526

Czechoslovakia 294

Denmark 6880

France 1044, 9423

Japan 4081, 5024, 5025, 6074, 8832

Kazakh SSR 7086

Pakistan 6075

Rhodesia 2813

S. Korea 3093, 3094, 3095

Sweden 6880, 7083, 8073, 9405

Switzerland 1043, 3092, 6880

Ukrainian SSR 9420, 10527, 10528

USA 1142, 1143, 1144, 1145, 3096,  
5023, 8833

USSR 7084

*Humulus*, Japan 3857*Ipomoea*

Nigeria 9799

Sierra Leone 1633

USA 8299

*Juglans*

Greece 6476

Italy 6477

Kirgiz SSR 6560

USA 4575

*Lablab*, India 988*Lactuca*

UK 9246, 9247, 9248, 10059, 10060,  
10061, 10062

USA 5595, 5596

*Lagenaria* 3705*Lens*, Canada 2754*Lespedeza* 7846

USA 468, 10677

*Linum*

Canada 1353, 3375

USA 1354

USSR 558, 10730

*Lolium*

Czechoslovakia 3855

Poland 52

Switzerland 3207

USA 6220, 10634

*Lotus*, Canada 2245, 8270*Luffa* 3705*Lupinus*

Australia 3295, 4304

Poland 55

Ukrainian SSR 3297

USA 6272, 6273

*Lycopersicon*

Australia 2638

Canada 2637

France 2591

Japan 890, 3857

Netherlands 7697

## Varieties contd.

*Lycopersicon* contd.

UK 9259, 9260, 9261, 9262, 9263,  
9264

Ukrainian SSR 7700

USA 4637, 5618, 8540

USSR 10980

*Malus*

Finland 4509

France 5422

Greece 6476

Hungary 10859

India 9926

Italy 3520, 3521, 6477

Japan 1431, 3857, 9104

Norway 4508

South Africa 9925, 10856

Sweden 4509, 5424

Switzerland 7543

UK 1442, 5422

Ukrainian SSR 7544

USA 3522, 5425, 7545, 8390

USSR 2469, 6486, 9924

*Mangifera*, Israel 7570*Manihot*

Malaysia 3401

Nigeria 9847

*Medicago*

Australia 10654, 10655, 10656

Austria 3854

Canada 5213

Czechoslovakia 3855

Switzerland 3207

USA 3262

*Mentha*

Bulgaria 10188, 10189

USSR 5715

*Moringa*, India 10087*Morus*

France 1464

S. Korea 4538

*Nephelium*, litchi, India 10894*Nicotiana*

Australia 3421

Canada 6399

Czechoslovakia 1371

Japan 589, 9034, 9851, 9852, 10774,  
10775, 10776

Kazakh SSR 4429

New Zealand 7439

Poland 7438

Turkey 1370

Ukrainian SSR 4429

USA 588, 3422, 6398

USSR 4429, 4430

*Onobrychis*, Canada 6271*Oryza* 1207

Brazil 352, 3173

China 2107, 9675

Colombia 353

Fiji 2116

India 349, 1199, 1210, 2117, 2118,  
2119, 2120, 3160, 5090, 5120, 5121,  
6141, 8900, 8901, 9658, 9660, 9661,  
9662, 10592, 10593

Italy 2103

Japan 2115, 5118, 6143, 6144, 6145,  
8158, 8160

Liberia 1632

Malaya 3160

Nepal 8899

Nigeria 1632

Pakistan 6135

Philippines 354, 8154, 8157, 8159

S. Korea 350, 351

Sierra Leone 3174, 8161

Sri Lanka 8897

Sudan 9659

Taiwan 348, 4191, 8898

Thailand 1208

USA 1209, 4189, 4190, 5117, 5119

Venezuela 4188

*Panicum*

USA 5062, 6110

USSR 2061

*Paspalum*, India 3137*Pastinaca*, USA 8496*Pennisetum*, USA 1181*Persea*

Kenya 6528

South Africa 10897

*Phaseolus*

Japan 3857, 6707

## Varieties contd.

*Phaseolus* contd.

Mexico 6706, 10100

Romania 943

Sweden 10103

UK 2812, 3733, 9288, 9289, 9290,  
10102, 10104, 10105, 11093

USA 944, 5652, 6708

*Phleum*

Canada 7241

Switzerland 3207

USA 5171

*Pinus*, Hungary 4588*Pisum*

Canada 4748

German Federal Republic 822

Poland 56

Sweden 9405

UK 8614, 8615, 8616, 9322, 9323,  
10159, 10160, 10161, 10162, 10163

USA 8499

USSR 10157, 10158

*Poa*

Sweden 8936

USA 416, 5163, 5164, 5165

*Populus*, Canada 4581*Prunus*, almond

Greece 6476

Italy 6477

Turkmen SSR 7621

Ukrainian SSR 7621

*Prunus*, apricot

Canada 3545, 3546

Greece 6476

Italy 4525, 6477

Japan 3857

Romania 6499

Ukrainian SSR 10876

*Prunus*, cherry

German Federal Republic 8401

Greece 6476

Italy 6477, 7564, 8402, 8403

UK 1424, 3837

USA 3552

USSR 9119

*Prunus*, nectarine

Italy 6477, 6516

USA 4534

*Prunus*, peach 714

\*Armenian SSR 710

Bulgaria 6512

Greece 6476

Italy 6477, 8411, 10881

Japan 3857, 5444, 6513

Moldavian SSR 8410

S. Korea 2497

USA 711, 4530, 6510, 6511, 9951

*Prunus*, plum

German Federal Republic 9939

Greece 6476

Italy 6477, 6502

South Africa 2488

UK 9942

USA 3548

*Punica*, Azerbaijan SSR 2465*Pyrus*

China 4522

Greece 6476

Italy 3535, 6477

Japan 692, 3857, 6492

South Africa 10856

Ukrainian SSR 9934, 10869

USA 5433, 10868

USSR 7555, 7557

Yugoslavia 9112

*Raphanus*

Belorussian SSR 5552

Japan 5553

Lithuanian SSR 9228

Netherlands 839

Ukrainian SSR 9230

USSR 9215

*Ribes*, black currant

Lithuanian SSR 6531

USSR 9981, 9982

*Ribes*, gooseberry, UK 3501*Ricinus* 7846

India 8364

*Rubus*, blackberry



**Varieties contd.****Rubus, raspberry contd.**

German Federal Republic 2521  
Sweden 10908

**Saccharum**

India 2334, 3384, 6372, 6373  
Mauritius 1360  
Philippines 566, 567  
USA 565, 5317, 10750, 10751

*Salvia*, Bulgaria 10190, 10191

*Schizachyrium*, USA 1253

**Secale**

Belorussian SSR 10414  
Canada 7993  
France 1044  
Switzerland 1043  
USSR 1909, 9512

*Secale* × *Triticum*, triticales

USA 214  
USSR 4920

**Sesamum**

India 8365  
S. Korea 635

**Solanum, potato**

Australia 6296, 6297  
Austria 3854  
Canada 6290, 6292, 6293  
France 9775  
German Federal Republic 4334  
Irish Republic 486  
Peru 8969  
Rhodesia 2813  
S. Korea 4333  
Switzerland 1305  
UK 6289, 7313, 8968  
Ukrainian SSR 9774  
USA 6291, 6294, 6295, 7315, 10684

**Sorghum**

Argentina 4127  
India 9639, 9640  
Rhodesia 2813  
Romania 2080  
Taiwan 1184  
USA 5073

*Spinacia*, USA 7675

*Spondias*, USA 6541

*Stenotaphrum*, USA 5203, 6237, 10648

*Stevia*, S. Korea 3418

*Stylosanthes*, Australia 10679

*Trichosanthes*, India 5614

*Trifolium*, Switzerland 3207

*Trifolium*, minor species

Australia 9756  
Switzerland 7300

*Trifolium*, red clover

Australia 3279, 6261  
Canada 4294  
Czechoslovakia 3855  
Poland 54

*Trifolium*, subterranean clover, Australia 10675

*Trifolium*, white clover, Poland 54

**Triticum**

Australia 1055, 1056, 1057, 1058, 2879, 5843  
Austria 3854  
Bulgaria 7879  
Canada 105, 106, 4838, 4842, 6909, 6910, 6911, 7082  
Finland 7821  
France 1044, 9423  
Hungary 8723, 9454  
India 9442, 10287  
Italy 3877  
Japan 4839, 4840, 4841  
Kirgiz SSR 10283  
Moldavian SSR 9374  
New Zealand 4837  
Pakistan 5828  
Rhodesia 2813  
Romania 6912, 8722, 9443  
Sweden 2881, 6914, 9405, 9445, 10285  
Switzerland 1043, 1054, 2877, 2878, 6914, 10285  
UK 6915  
Ukrainian SSR 9420, 10289  
USA 104, 1743, 4843, 5837, 5838, 5839, 5840, 5841, 5842, 6913, 7880, 7881, 7882, 7883, 7884, 7885, 10286, 10288  
USSR 168, 4833, 8724, 9444, 10284

**Vaccinium**

Canada 750

**Varieties contd.****Vaccinium contd.**

German Federal Republic 3593

USA 750, 751, 2526, 3593

vegetable crops, German Federal Republic 822

**Vicia, broad bean**

Poland 56  
Sweden 10092  
UK 10093, 10094

*Vicia*, vetch, USSR 4274

*Vigna*, cowpea, India 6733

*Vigna*, minor species

India 952  
Japan 6741  
USA 5670

*Vitis* 9160, 10006

Armenian SSR 6547

Azerbaijan SSR 2544, 10004

China 6542

Italy 6477, 10005, 10933

Japan 3857

Moldavian SSR 9374

Romania 6546

Spain 3608

Tajik SSR 5496, 8438

Ukrainian SSR 1490

USA 4564, 5495, 9159

USSR 771, 2543, 5490, 6545, 8449, 9161, 10007

Uzbek SSR 10008

**Zea, maize**

Austria 3854  
Italy 1941, 8798  
Mexico 1942  
Rhodesia 2813  
Romania 1940  
S. Korea 241, 242, 1121, 3029  
Switzerland 237, 238, 239, 7031, 8017

*Zea*, sweet corn, Canada 289, 290

*Zizyphus*, S. Korea 8434

**Varieties, classification**

*Allium*, onion 5559

Ananas 5484

*Avena* 7870, 7987

*Brassica* 1529

*Brassica*, kale 2618

*Camellia* 5358

cereals 76, 3884

review 1047

*Festuca* 5191

*Glycine* 3757

*Hordeum* 76, 317, 4079, 4100, 6088, 6091, 7099, 7870, 8848

*Humulus* 8359

*Ipomoea* 3336, 3337

*Manihot* 579

*Medicago* 1266, 2225

*Olea* 4480, 9897

*Oryza* 370, 1218, 2130, 3175, 5125, 8180, 8903

*Persea* 6528

*Phaseolus* 6712, 10107

*Poa* 2187, 6206

*Prunus*, peach 5445

*Prunus*, plum 5436

*Pyrus* 6493

*Secale* 76, 1908, 8000, 8001

*Secale* × *Triticum*, triticales 76

*Solanum*, potato 496, 1306

*Sorghum* 1185

*Syzygium* 1484

*Theobroma* 5362, 7482

*Triticum* 76, 1078, 1742, 1761, 1798, 1800, 1817, 2880, 3954, 4860, 5900, 7870, 7924, 10322, 10323, 10340

*Vicia*, broad bean 11086

*Vitis* 7606

*Zea*, maize 1941, 1997, 8812

*Zea*, sweet corn 8066

**Varieties, technique**

crop plants 3856

*Triticum* 3856

**Variety trials, technique**

*Arachis* 7504

*Avena* 1110

*Brassica*, rape 5774

cereals 7862, 8693

crop plants 2810, 3027, 3852, 4812, 5769, 5773, 5774

*Gossypium* 10705

*Hordeum* 8693

*Pisum* 4812

**Variety trials, technique contd.**

*Saccharum* 9836

*Secale* 8693

*Solanum*, potato 2255, 5249, 6288

*Sorghum* 7859

*Triticum* 189, 5774, 8693

vegetable crops 3650, 6598

*Vitis* 5494

*Zea*, maize 3027, 5988, 7859

**Vascular tissue**

*Allium*, onion 1015

*Beta* 1015

*Beta*, sugar beet 2344, 4413

*Brassica* 10054

*Capsicum* 1015

*Crambe* 10054

*Cruciferae* 10054

*Cucurbita* 1015

*Datura* 1015

*Eruca* 10054

*Hordeum* 9613

*Picea* 816

*Populus* 6573

*Quercus* 6568

*Sesamum* 1015

*Solanum*, egg plant 1015

*Triticum* 1015, 5890, 6868, 6929

*Vitis* 777

*Zea*, maize 6868

**Vegetable crops**

bacteria 4598

breeding 9216

France 8500

Netherlands 2595

USSR 43, 820

chemicals, as plant constituents

ascorbic acid 826

protein 826

vitamin A 826

cold, effect of 61

cold resistance, review 70

fungi 4598

genetic resources 2594

genetics

bacteria 4598

fungi 4598

viruses 4598

germplasm banks

Papua New Guinea 7844

UK 1519

glass and plastic, cultivation under, review 70

harvesting, mechanical 5772

light, effect of, review 70

pathology 827, 3869

pollen 61

quality, symposium 825

quality, for nutrition, review 826

salinity, technique 9217

seed storage 1519

varieties

Finland 3651

German Federal Republic 822

variety trials, technique 3650, 6598

viruses 4598, 5544

**Vegetative period (see Growth period; Seasonal growth)****Vegetative reproduction 4788**

*Beta*, sugar beet 3390

*Brassica*, cauliflower 2613, 3682

*Brassica*, sprouting broccoli 6623

*Camellia* 1386, 10217

crop plants, review 2787, 3826, 5748

*Cynodon* 3217, 3218

*Festuca* 9735

*Fragaria* 8432

*Ipomoea* 5274

*Musa* 762

*Oryza* 10603

*Phalaris* 5197

*Populus* 6572

**Velvet bean (see Mucuna)****Venturia**

*Malus* 688, 689, 1436, 2471, 2474, 2484, 3512, 3513, 3516, 3529, 3530, 4506, 4518, 4519, 4520, 5795, 6480, 9108, 9109, 10864

physiological races 3531

Moldavian SSR 6490

*Populus* 6578

*Pyrus* 3511, 3540, 6491, 8396

*Venturia*, technique, *Pyrus* 7560

Vernal grass (see *Anthoxanthum*)



**Vernalization**

- Aegilops* × *Triticum* 8728
- Allium*, onion 8509
- Brassica*, Brussels sprouts 5593
- Brassica*, swede 5568
- Cicer* 4671
- Dactylis* 5151
- Lens* 4671
- Lolium* 5151
- Phalaris* 4267, 6230
- Triticum* 136, 140, 1842, 6941, 7925, 7932, 7933, 8728, 8750, 10315, 10325, 10355, 10356
- Vicia*, broad bean 4671
- Vernalization, technique, cereals** 2859
- Verticillium**
  - Brassica*, rape 1404
  - Capsicum* 3486, 6466, 10843
  - Carthamus* 10808
  - Cicer* 6793
  - Cucumis*, melon 5602
  - Fragaria* 2530, 5475, 5480, 8433
  - Gossypium* 533, 1687, 2313, 4367, 5285, 5302, 10724
  - book 4387
  - physiological races 1350, 3369, 3370, 4386, 4390, 5303, 5304, 5306, 7392, 10722
  - Helianthus*, sunflower 643, 1411, 2422, 7496, 10808
  - physiological races 6452
  - USA 10823
  - Humulus* 3496
  - physiological races, UK 4452
  - Lycopersicon* 827, 915, 917, 2591, 2638, 3719, 4637, 7714
  - physiological races
  - Greece 7716
  - Italy 8560
  - Medicago* 6255, 7279
  - Nicotiana* 7439
  - Solanum*, egg plant 2592
  - Solanum*, potato 6290, 7339, 8982
- Verticillium, technique**
  - Gossypium* 5304
  - Lycopersicon* 3718
  - Medicago* 6252
- Vetch (see *Vicia*, vetch)**
- Vetiveria**, chemicals, as plant constituents, oil, essential 5398
- Vicia***
  - chemicals, as plant constituents
    - albumin 10090
    - amylase 6691
    - esterase 6691
    - glutamate oxaloacetate transaminase 6691
    - indophenol oxidase 6691
    - taxonomy 6691, 10090
    - variation 10090
- Vicia*, broad bean**
  - Aphis* 2667
  - Aphis*, technique 2667
  - Ascochyta* 4683, 6697, 6699, 11088
  - Botrytis* 4664, 7737
  - Botrytis*, technique 6698
  - breeding 4670, 5644
    - Canada 6679
    - Egypt 4664, 4674, 6681
    - Europe, symposium 2664
    - Finland 7827
    - Japan 6677
    - Netherlands 6680
    - Sudan 4665
  - breeding, technique 2665
  - Callosobruchus* 3732
  - cell division 5645
  - cell inclusions 11082
  - centromere 5645
  - chemicals, as nutrients, nitrogen 4682
  - chemicals, as plant constituents
    - aminoacids, sulphur 11084
    - amylase 8571
    - anthocyanins 6684
    - arginine 11083
    - convicine 6692, 6693
    - cystine 11083, 11084
    - dopa 2684
    - esterase 8571
    - flavonoids 2674
    - glucosides 6692
    - glutamate oxaloacetate transaminase 8571

***Vicia*, broad bean contd.**

- chemicals, as plant constituents contd.
  - glutamine synthetase 3729
  - hemagglutinins 2678, 6676, 11085
  - heterochromatin 10097
  - indophenol oxidase 8571
  - legumin 8951, 11084
  - lysine 11083
  - methionine 11083
  - nucleic acids 1628, 9287
  - phenols 941
  - polypeptides 674
  - protein 27, 2671, 2676, 2678, 2679, 3725, 4680, 8951, 8952, 10092, 10095, 11083, 11084
  - protein, technique 11086
  - sulphur 11084
  - sulphydryl compounds 936
  - tannin 6684, 11085
  - trypsin inhibitor 2678, 6676, 11085
  - vicilin 11084
  - vicine 6692, 6693
  - wyerone 2663
- chemicals, cytological effects
  - azide, sodium 8685
  - caffeine 20, 2781
  - cytostasan 10097
  - ethanol 10097, 11081
  - GA 20
  - IAA 20, 2781
  - MH 10097, 10229, 11081
  - mitomycin C 10097, 10229, 11081
  - N*-nitroso-*N*-methylurea 8685
  - sodium benzoate 1628
  - sodium sulphite 1628
  - triaziquone 10229
- chemicals, general effects
  - chlorothalonil 6697
  - mancozeb 6699
  - TIBA 7734
- chemicals, mutagenic effects
  - ethyl methanesulphonate 935
  - ethylenediaminetetraacetic acid 936
  - ethylenimine 936
- chloroplasts, number 6686
- chromatids 9287, 11081
- chromatids, technique, review 10096
- chromosome translocation 10097, 10229, 11081
- chromosomes, aberrations 20, 48, 1628, 2781, 8685, 10097
- chromosomes, morphology 2675, 9287, 10097, 11080
- chromosomes, morphology, technique 1703, 2782, 4785
- cold resistance 6696
- combining ability 6690
- combining ability, technique 3725
- competition 6694
- cytology, review 10096
- density of stand 939, 2668
- determinate and indeterminate habit 2681
- development and growth 3727
- diallel analysis 2676, 2677, 2682, 3725
- digestibility 941
- experimental designs 6694
- flower, colour 941, 3728
- foliage area 3727
- fruit, number 7734, 7736
- fruit, size 7737
- Fusarium* 4668
- $\gamma$  rays 935, 938, 2681, 3732
- genetic resources 4666, 4670
- genetic variance 6690, 6695
- genetics
  - anthocyanins 6684
  - flower, colour 3728, 6684
  - inflorescence 4681
  - seed, colour 3728
  - stem, colour 6684
  - tannin 6684
  - Uromyces* 11087
- genotype × environmental interaction 2668, 6693
- germination 936
- germplasm banks, Syria 6678
- growth period 2680, 4681, 7734, 10092
- habit 4671
- hard seed 1566
- heat, effect of 7733
- height 2681, 4681, 6694
- heritability 937, 938, 2670, 2679, 3727

***Vicia*, broad bean contd.**

- heritability contd.
  - yield components 10095
- heterosis 937, 2677
- history and evolution 3730
- immunology 3725
- inbreeding 27, 48, 940, 2680, 10091
- inflorescence 4681
- internode, size 7734
- land races 2669
- leaf, shape 2681
- leaf, size 2681
- light, effect of 7733
- mechanical injury 6684
- mutation, induced 936, 938, 2681
- mutation, induced, technique 935
- neutrons 935
- nitrogen fixation 4682
- Orobanche* 4668, 6695
  - physiological races 2666
- Orobanche*, technique 11089
- outcrossing 27, 939, 3728, 3730, 6689
- ovule, number 2676
- photoperiodism 4671, 6687
- pollen 3725
- pollination 940, 2683, 4675, 7736
- pollination, technique 6685
- polymorphism 8571
- polyploidy 6686
- pruning 2668, 3731
- quality, for cooking 8572, 11086
- quality, for freezing 8572
- quality, for nutrition 4670, 11085
- recombination 48
- Rhizobium* 674
  - physiological races 4682
- Rhizoctonia* 4668
- root 4668
- seed 941
- seed, colour 939, 3728, 3732
- seed, number 2670, 2676, 6688
- seed, size 7736
- seed, weight 937, 2670, 2676, 6683, 6688
- selection, artificial 6682
- shedding 3727, 4671
- sowing and planting date 2671, 6687
- spring and winter habit 6696
- stability 6683
- sterility and fertility 4670
- sterility, male 6686
- sterility, male, cytoplasmic 3726, 7733, 7735, 11082
- sterility, self 48, 2670, 7736
- taxonomy 2674, 2675, 3730, 8571, 8952
- Uromyces* 4664, 11087
- variation 2670, 2672, 2673, 5644
- varieties
  - Poland 56
  - Sweden 10092
  - UK 10093, 10094
- varieties, classification 11086
- variety trials
  - Ethiopia 4666
  - Netherlands 4680
- vernalization 4671
- viruses 4819, 6700
- viruses, technique 3237
- X rays 936
- yield 6683
- yield components 938, 1567, 2669, 2677, 3727, 5644, 6688, 6690, 10091, 10095

***Vicia*, broad bean - *Daucus*, protoplast**

fusion 1673

***Vicia*, broad bean - *Hordeum*, protoplast**

fusion 8834

***Vicia*, vetch**

- bacteria 7302
- breeding, USSR 4274, 4275, 4302
- chemicals, as plant constituents
  - amylase 8571
  - esterase 8571
  - glutamate oxaloacetate transaminase 8571
  - indophenol oxidase 8571
  - protein 8952
  - trypsin inhibitor 466, 6270
  - wyerone 2663
- chemicals, general effects, ethyl
  - methanesulphonate 466, 6270
- chloroplasts, number 6686
- chromosomes, morphology 5233, 6269
- chromosomes, number 3861, 6269, 7848
- composite varieties 3289



**Vicia, vetch contd.**

- ecotypes 1287
- $\gamma$  rays 466, 6270
- genetic resources 2179
- genetics, leaf, shape 464
- germplasm banks, Hungary 2181
- growth period 465, 3290
- hairs 1287
- hard seed 3289
- height 465, 2242
- heritability 3290
- hybridization, interspecific 3289
- leaf, shape 464, 1287
- leaf, size 1287
- polymorphism 8571
- polyploidy 6686
- Pseudomonas* 9757
- seed, weight 465
- taxonomy 8571, 8952
- varieties, USSR 4274
- viruses 5643
- yield components 3290

**Vicieae**

- chemicals, as plant constituents
  - chromatin 8250
  - phytoalexins 2663
- history and evolution 8250, 8952
- taxonomy 8952

**Vigna, cowpea**

- abscission 1637
- aneuploidy 6675
- Aphis* 1637
- breeding
  - Brazil 7751
  - Colombia 10088
  - Kenya 9299
  - Nigeria 9298
- Callosobruchus* 1575, 2702, 5669, 9304
- cell culture 6675
- Cercospora* 3740
- Chalcodermis* 8592
- chemicals, as nutrients
  - calcium 11111
  - manganese 11111
  - nitrogen 5667
- chemicals, as plant constituents
  - albumin 7754
  - aminoacids 1018
  - chlorophyll 3724
  - gliadin 7754
  - globulin 7754
  - glutelin 7754
  - hemagglutinins 6676
  - lysine 1018
  - methionine 6738
  - nucleic acids 5641
  - protein 1018, 7754
  - tannin 5639
  - trypsin inhibitor 2702, 5669, 6676, 9304
  - tryptophan 1018
- chemicals, fertility and sex, effects,  $\epsilon$ -aminocaproic acid 9408
- chemicals, general effects
  - ethephon 1637
  - lindane 3740
  - monocrotophos 3740
- chemicals, mutagenic effects, ethyl methanesulphonate 10114
- chromosomes, aberrations 6675
- Colletotrichum* 10118
- combining ability, seed, weight 9301
- Cydia* 6740
- density of stand 5666
- development and growth 8591
- Elsinoe* 1637
- Empoasca* 3740, 11112
- Entyloma* 4700
- environment 8591
- Erysiphe* 933
- flower 4698
- forage 3739
- fruit 8592
- fruit, number 5666
- fruit, size 11109
- Fusarium*, physiological races, Nigeria 4701
- $\gamma$  rays 3724, 4696
- genetic variance
  - growth period 10116
  - yield components 10116
- genetics
  - Meloidogyne* 5668

**Vigna, cowpea contd.**

- genetics contd.
  - seed, anatomy 9408
  - sterility, male 6734, 7753
- genotype  $\times$  environmental interaction 10112
- germination 8591
- growth period 6737, 10115, 10116, 11109
- habit 3724, 7752
- heat and drought resistance 3740, 9303, 11109
- height 950, 3724, 6737
- heritability 3739, 4697, 6736
  - growth period 10116
  - yield components 10115, 10116
- heterosis 6737, 10113
  - yield components 9302
- history and evolution 5640, 5641, 8591
- hybridization, interspecific 9408
- leaf 3724
  - leaf, number 5666
  - leaf, size 4699, 5638, 6737
  - leaf, weight 5638
- Macrophomina* 11109
- Maruca* 3740
- maternal effects, *Callosobruchus* 9304
- matrocliny 6738
- Megalurothrips* 1637
- Meloidogyne* 933, 951, 4702, 5668
- mixtures of crops or genotypes 7751
- multivariate analysis 9300
- mutation, induced 3724
  - yield components 10114
- nitrogen fixation 5667
- outcrossing 5664
- ovule 5640
- photoperiodism 1637, 11109
- photosynthesis 4699
- pollen 5640, 9408
- pollination 4698
- polyploidy 6675
- precipitation 1637
- quality, for cooking 5665
- Rhizobium* 3740, 5667, 7732
- Rhizoctonia* 3740, 6739
- salinity 5642
- seed 1637
  - seed, anatomy 1575, 9408
  - seed, colour 9408, 10118
  - seed, moisture 1575
  - seed, size 1565, 1637, 9298
  - seed, texture 9298
  - seed, weight 9301
  - selection, artificial 4697
- Septoria* 1637
- soil moisture 9303
- soil pH 11111
- sowing and planting date 8591
- stability 6737, 7752
- sterility, male 6734, 7753
- succession, crop 2700, 10117
- Taeniothrips* 3740
- temperature, effect of 6737
- tissue culture 4696
- toxic soils 11111
- Uromyces* 1637
- varieties, India 6733
- variety trials
  - Brazil 7752
  - India 2700, 10115
  - Kenya 10112
- viruses 9298, 11113
  - physiological races 7755
    - Ghana 1637
    - Nigeria 1637
    - Tanzania 1637
- water balance 4699
- Xanthomonas* 1637
- yield components 2701, 3739, 4697, 6735, 6736, 9300, 9302, 10114, 10115, 10116

**Vigna, cowpea  $\times$  Phaseolus, hybridization, intergeneric 2686, 4677****Vigna, minor species**

- breeding, Colombia 10088
- Bruchus* 2703
- Callosobruchus* 1644, 2711
- Cercospora* 2703, 6744
- chemicals, as nutrients, nitrogen 4678, 8595
- chemicals, as plant constituents
  - aminoacids 10126

**Vigna, minor species contd.**

- chemicals, as plant constituents contd.
  - chlorophyll 3744, 4706, 10120, 10122
  - $\gamma$ -glutamyl-S-methylcysteine 4708
  - $\gamma$ -glutamylmethionine 4708
  - nitrogen 8595
  - nucleic acids 57
  - protein 1644, 8594, 9306, 10123
  - ribulose 1,5-diphosphate carboxylase 4707
  - sugar 10126
- chemicals, cytological effects
  - ethyleneimine 3744
  - hydroxylamine 3744
- chemicals, fertility and sex, effects
  - ethyleneimine 3744
  - hydroxylamine 3744
- chemicals, mutagenic effects
  - dimethyl sulphoxide 4703
  - ethyl methanesulphonate 2708, 4703, 6742, 10122, 11116
  - ethyleneimine 3744
  - hydroxylamine 3744, 6742
  - N-nitroso-N-methylurea 6742, 11116
- chromosomes, aberrations 3744
- chromosomes, accessory 2707
- chromosomes, morphology 945, 2707, 9306
- cold resistance 1644
- combining ability 1622, 7756
  - forage 11115
  - yield components 10124, 11118
- development and growth 953, 5672
- ecotypes 8596
- endomitosis 2707
- Erysiphe* 933, 1644, 2703, 6744, 6746, 6747
- experimental designs 1622
- flooding 1644
- flower, colour 7757
- foliage area 5672
- forage 11115
- fruit 7758
- fruit, colour 7757
- fruit, number 7756, 8593, 10123
- fruit, size 10123
- $\gamma$  rays 4706, 5671, 6742, 8593, 10120, 10121, 10122
- gene interaction 3742
- genetic variance 7756
  - yield components 10124, 11118
- genetics
  - chlorophyll 4706
  - flower, colour 7757
  - fruit, colour 7757
  - meiosis 2706
  - seed, colour 3743, 7757
  - seedlings, colour 7757
  - viruses 10127
- genotype  $\times$  environmental interaction 1576, 7756
- geography 4704, 4705, 6716
- germplasm banks, Taiwan 1664, 2703, 3849
- growth period 952, 1644, 4704, 4705, 4706, 8594, 8595, 10122, 10123, 11116
- habit 3744, 11117
- harvest index 11073
- heat and drought resistance 952, 1576, 1644
- height 1644, 3744, 10122
- heritability 2709
  - yield components 11114
- heterosis 2705
- shedding 10125
- history and evolution 4708, 5640, 6716, 7758
- hybridization, interspecific 1644, 6744, 10119
- inflorescence, number 7756
- leaf, weight 4707
- linkage 7757
- Macrophomina* 6744
- meiosis 953, 2706, 9306
- Melanagromyza* 1644, 2703, 6748
- Meloidogyne* 933, 1644, 4709
- mixoploidy 953
- molecular genetics 57
- multiple genes 7757
- mutation, induced 2706, 2708, 3744, 4703, 4706, 6742, 6744, 7731
- chlorophyll 10120, 10122
- fruit, number 8593



**Vigna, minor species contd.**

## mutation, induced contd.

- growth period 10122, 11116
- habit 10120
- height 10122
- leaf 10120

neutrons 8593

nitrogen fixation 4678

nucleus, size 9306

*Ophiomyia* 1644, 6748

ovule 5640

photoperiodism 1644, 4704, 7731

photosynthesis 4707, 5672

pollen 3741, 5640

pollen, size 9306

pollination 10125

polyploidy 953, 10119

*Pseudomonas* 6744, 6745*Rhizobium*, physiological races 4678*Rhizoctonia* 6744

seed 8596

seed, colour 3743, 7757

seed, number 10123

seed production 10125

seed, size 1565, 10121

seed, texture 6746

seed, weight 1644, 10123

seedlings, colour 7757

selection, artificial 11114

shedding 10125

sowing and planting date 954, 4704, 4705, 7759

stability 1576, 2708

sterility and fertility 953, 3744, 5671, 10125

taxonomy 4708, 6716, 9306

temperature, effect of 4704, 4705, 7731

tissue culture 2662

varieties

India 952

Japan 6741

USA 5670

variety trials, India 2704, 9305

viruses 956, 2703, 6744, 9307, 10127

*Xanthomonas* 6744, 10126

yield components 954, 955, 2705, 2708, 2709, 2710, 3742, 6743, 7759, 8594, 10124, 11114, 11117, 11118

**Vine (see Vitis)****Viruses***Allium*, leek 6613, 10972*Allium*, onion 824*Arachis* 2795*Avena* 3009, 3010, 4933, 4934, 7011, 10412

physiological races, Canada 9511

*Beta* 6377*Beta*, sugar beet 3393, 4419, 6377, 8328, 9413, 9845, 9846*Brassica*, Brussels sprouts 6625*Brassica*, cabbage 5591, 6621*Brassica*, Chinese cabbage 1642, 8515

physiological races 1540

*Brassica*, Chinese cabbage  $\times$  *Brassica*, rape 8515*Brassica*, Chinese cabbage  $\times$  *Brassica*, turnip 8515*Brassica*, rape 8515*Brassica*, turnip 8515*Cajanus* 2797

physiological races 2765

*Capsicum* 658, 2586, 3486, 5404, 7520, 7524, 8495, 8500, 10969

physiological races, French West Indies 9911

*Carica* 5463, 7577, 8421*Carthamus* 9073*Cicer* 986, 2796, 3795*Cichorium*, chicory 4626*Cichorium*, endive 4626*Citrus* 2505, 9129*Citrus*, grapefruit  $\times$  *Citrus*, mandarin 2505*Citrus*, lemon 2505*Citrus*, mandarin 2505*Citrus*, orange 723, 2505, 9129*Citrus*  $\times$  *Poncirus* 2505*Cocos* 2515

crop plants 1693, 9403

review 2827

*Cucumis* 10977, 11036*Cucumis*, cucumber 827*Cucumis*, melon 2589, 5605, 8500, 11005**Viruses contd.***Cucurbita* 881, 2590*Daucus* 5551*Eleusine* 5068*Elymus*  $\times$  *Hordeum* 8837*Euchlaena* 4074*Glycine* 957, 1579, 3746, 3774, 4744, 4745, 6758, 9319, 10154

physiological races 4739, 11176

S.Korea 3775

USSR 7779

*Hibiscus* 2323, 2329, 4401*Hordeum* 2852, 3131, 4105, 8706, 8837, 9618, 10521*Hordeum*  $\times$  *Triticum* 3905*Humulus* 3496*Ipomoea* 8299*Lactuca* 4626, 9247

physiological races, USA 5599

*Lens* 7796*Lolium* 6224*Lycopersicon* 827, 890, 915, 924, 1521, 2591, 2655, 3722, 3723, 4598, 4637, 4659, 5795, 6600, 6652, 6668, 7725, 7726, 8351, 8500, 9258, 10083, 10084, 10978, 10980, 11064, 11066

physiological races 1517, 2656, 5634, 6667, 11065

Japan 8563

*Manihot* 1634, 2250, 3417, 4425, 6395, 9849

review 7430

*Medicago* 1274*Nicotiana* 583, 614, 618, 621, 622, 623, 2365, 2378, 3435, 3444, 3445, 3446, 3447, 3833, 4444, 5339, 5357, 6415, 7433, 7435, 7448, 7452, 7454, 7458, 7473, 7474, 7475, 7476, 8336, 8350, 8692, 9044, 9045, 9862, 9863, 10774, 10775, 10782, 10796

review 2377

*Oryza* 350, 1202, 1230, 1632, 2103, 2164, 2176, 3167, 3168, 5148, 6140, 6195, 8155, 8157, 8209, 8216, 8219, 8220, 8886, 9699, 9713, 9714*Phaseolus* 948, 5648, 5663, 7750, 8583, 9369, 10110, 10979

physiological races 5662, 6724, 10098

*Pisum* 4598, 4755, 5643, 7791

physiological races, German Democratic Republic 6600

*Poncirus* 2505*Prunus*, apricot 8385*Prunus*, cherry 8409*Prunus*, plum 8385*Ribes*, black currant 3500*Ribes*, gooseberry 3501*Rubus*, raspberry 4545, 4549, 9413, 10905*Saccharum* 572, 4795, 5317, 5324, 9026

physiological races 573

*Secale*  $\times$  *Triticum*, triticale 2851, 8703*Solanum*, egg plant 2657, 2660, 6671, 6674*Solanum*, potato 485, 489, 491, 518, 520, 2279, 2280, 2281, 3321, 4333, 5258, 5265, 5266, 5268, 5270, 6338, 6339, 7313, 7361, 7362, 7835, 8298, 8982, 9772, 9797

physiological races 3333, 3334, 7363, 8987

Belorussian SSR 3335, 6337

Poland 519

*Sorghum* 7152, 7153, 7177, 8132, 8146, 10569, 10590

physiological races, technique 7178

*Spinacia* 6600*Theobroma* 5364, 5365, 5366, 9049*Trifolium*, Alsike clover 10670*Trifolium*, minor species 10670*Trifolium*, red clover 1277, 1282, 3278, 8692*Trifolium*, white clover 1277, 3278, 10670*Tripsacum* 4074*Triticum* 1098, 2987, 2988, 2989, 3130, 4919, 6988, 7883, 7910, 7969, 7970, 8703

vegetable crops 4598, 5544

*Vicia*, broad bean 4819, 6700*Vicia*, vetch 5643*Vigna*, cowpea 9298, 11113

physiological races 7755

**Viruses contd.***Vigna*, cowpea contd.

physiological races contd.

Ghana 1637

Nigeria 1637

Tanzania 1637

*Vigna*, minor species 956, 2703, 6744, 9307, 10127*Vitis* 4574*Zea*, maize 286, 287, 1118, 1631, 2014, 3026, 3029, 3034, 4073, 4074, 4946, 5017, 5018, 7074, 7075, 8831, 10510, 10511, 10512*Zea*, sweet corn 7074**Viruses, technique***Avena* 5822*Beta*, sugar beet 6385*Colocasia* 3419*Lupinus* 3237*Phaseolus* 3237, 6732*Pisum* 3237

pulses 934

*Saccharum* 4408, 5323*Solanum*, potato 4360, 5269, 5270, 6340*Triticum* 5822*Vicia*, broad bean 3237*Xanthosoma* 3419*Zea*, maize 1923*Viteus*, *Vitis* 784, 5504, 6557, 9167, 9168, 9419**Vitis***Agrobacterium* 10014

physiological races 10938

bacteria 10939

*Botrytis* 5503, 6558, 9161, 9162, 9168, 9374, 10007

breeding 1488

Armenian SSR 768

Australia 5488

Azerbaijan SSR 5489, 10929

Canada 2539, 2540

France 2539, 2540, 3607, 10928

Israel 4809

Moldavian SSR 9153

Switzerland 1487

USSR 769

cell culture 1491

chemicals, as nutrients

calcium 4568

iron 7610

magnesium 4568

manganese 4568

potassium 4568

zinc 4568

chemicals, as plant constituents

acid phosphatase 9164

acids 2550, 2553, 4573, 6553, 6554, 7607, 7611, 7615

ascorbic acid 10009

calcium 3616, 10011

carbohydrates 5497

chlorophyll 8440

dimethyl sulphide 7616

3,7-dimethyl-1,7-octadiene-3,6-diol 10936

enzymes 5503

esters 2539, 2540

fructose 7615

furanones 4570

glucose 7615

magnesium 10011

malic acid 7615

methyl anthranilate 2539, 2540

molybdenum 10011

nitrogen 3616, 5497, 9164

nucleotides 6552

peroxidase 783, 9164

phenols 6553

phosphorus 5497, 10011

phosphorylase 9164

polyphenol oxidase 783

potassium 3616, 5497, 10011

protein 3613, 9164

pterostilbene 6558

resveratrol 6558

starch 3614

sugar 767, 2550, 2553, 3614, 3616, 4573, 6554, 7607, 7615, 9162

tannin 6553

tartaric acid 7615

terpenoids 4571

 $\alpha$ -viniferin 6558 $\epsilon$ -viniferin 6558



**Vitis contd.**

- chemicals, as plant constituents *contd.*
  - volatile compounds 5500
  - zinc 10011
- chemicals, fertility and sex, effects
  - BA 2552
  - cytokinins 8441
  - GA 2467
- chemicals, general effects
  - GA 8443
  - magnesium 5502
  - potassium 5502
  - sodium chloride 9166
- chimeras 8439
- chloroplasts 778
- chromosomes, aberrations 774, 1491, 2545, 2546
- chromosomes, number 2547
- cold, effect of 61
- cold resistance 781, 3614, 4573, 6542, 6547, 6549, 6556, 6557, 8449, 9158, 9161, 9164, 9167, 9168, 10006, 10013
- development and growth 2549, 8446, 9162
- Elsinoe* 3616, 9168, 10015, 10940
- environment 8445, 8446, 8447
- Eutypa* 8452
- experimental designs 767
- fruit 10935
- fruit, colour 6551, 6553
- fruit, size 773, 1492, 6551, 7614, 8440, 8445
- fruit, weight 773, 8443, 8445
- fungi 6557
- $\gamma$  rays 2544, 2545, 2546, 2554, 3615, 4565, 10009
- genetics
  - hermaphroditism 7613
  - sex 3611, 7613
- genotype  $\times$  environmental interaction 3609, 5494
- geographical races 8444, 8445, 8446
- germination 8440
- germplasm banks, USSR 7606
- Graphocephala* 10939
- growth period 778, 2548, 2554, 9101, 9161
- gynecium 4566
- hairs 1492
- heat and drought resistance 5502, 7609
- heritability, seasonal growth 8442
- hermaphroditism 7613
- heterosis 773, 2553
- heterozygosis 6548
- history and evolution 780, 9160
- hybridization, interspecific 769, 781, 1493, 3610, 3615, 4570, 4573, 5503, 6542, 6549, 6557, 7610, 8441, 8453, 9167
- inflorescence 8441
- internode 9164
- irrigation 4572
- leaf 4568
- leaf, shape 1492
- magnetism, effect of 3615
- meiosis 3610, 4566
- Meloidogyne* 5502
- mixoploidy 7612, 8439, 10934
- multivariate analysis 5494
- mutation 6554
- mutation, induced 2544, 2554, 9101, 10934
  - ascorbic acid 10009
  - fruit, size 10009
  - germination 10009
  - quality 10009
  - quality, for transport 10009
- pathology 10006
- Phytophthora* 5502
- plant introduction, to Yugoslavia 10006
- Plasmopara* 780, 782, 783, 1493, 2554, 3615, 6548, 6558, 8450, 8451, 8453, 9158, 9161, 9162, 9167, 9168, 9374, 10007, 10014
- pollen 61, 10010
- pollination 2551, 3611, 4567
- polyembryony and twinning 7612
- polymorphism 780
- polyploidy 1490, 1491, 8439, 10934
- polyploidy, technique 9163
- protoplast fusion 6557
- pruning 8448
- quality 8447

**Vitis contd.**

- quality, for fresh consumption 5495
  - quality, for storage 5499
  - quality, of juice 6554
  - quality, of wine 776, 779, 2541, 3613, 4570, 4571, 5490, 5500, 5501, 6544, 6546, 6547, 6549, 6553, 7616, 8448, 9156, 10006, 10936, 10937
  - respiration 5503
  - root 7610
  - root, number 10012
  - root, size 10012
  - rooting capacity 6549
  - rootstock 5502, 8450, 10931
  - salinity 5502
  - salinity, technique 9166
  - seasonal growth 3612, 6550, 8438, 8442
  - seed, number 8445
  - seed, weight 8445
  - seedlessness 2467
  - selection, artificial 8437, 10930
  - sex 2552, 3611, 4569, 7613, 8441
  - shedding 5497, 9101
  - soil compaction 5502
  - soil pH 5502
  - stability 772, 8444, 9162
  - stem 8446
  - sterility and fertility 3610, 4565, 4566, 8440, 10010
  - sterility, male 10010
  - sterility, self 2551
  - stomata 7609, 10935
  - taxonomy 6555
  - temperature, effect of 782, 6550
  - tissue culture 775, 5498, 9166
  - ultraviolet rays 774, 3615
  - Uncinula* 2554, 9168, 10016
  - variegation 6548
  - varieties 9160, 10006
    - Armenian SSR 6547
    - Azerbaijan SSR 2544, 10004
    - China 6542
    - Italy 6477, 10005, 10933
    - Japan 3857
    - Moldavian SSR 9374
    - Romania 6546
    - Spain 3608
    - Tajik SSR 5496, 8438
    - Ukrainian SSR 1490
    - USA 4564, 5495, 9159
    - USSR 771, 2543, 5490, 6545, 8449, 9161, 10007
    - Uzbek SSR 10008
  - varieties, classification 7606
  - variety trials
    - Australia 2542
    - Georgian SSR 9157
    - German Federal Republic 7608
    - Romania 6544, 7607
    - Spain 4563, 10931, 10932
    - Ukrainian SSR 6543
    - USA 5491, 5492, 5493, 9154, 9155
    - USSR 770, 6545, 9158
    - Uzbek SSR 1489, 9156
  - variety trials, technique 5494
  - vascular tissue 777
  - viruses 4574
  - Viteus* 784, 5504, 6557, 9167, 9168, 9419
  - X rays 774, 10009
  - xylem 777
  - yield components 776, 2541, 8447, 9165
- Vivipary**
- Fagopyrum* 407
  - Zea*, maize 4981, 7056
- Voandzeia**
- breeding, bibliography 477
  - chemicals, as plant constituents
    - albumin 6277
    - globulin 6277
    - tannin 6277
    - trypsin inhibitor 6277
- Vulpia**
- andrecium 3235
  - cleistogamy 3235
  - history and evolution 3235
  - sterility, self 3235
- Walnut (see Juglans)**
- Water balance**
- Aegilops* 1723
  - Agropyron* 1723
  - Agrostis* 6214
  - Avena* 91
  - Betula* 5525

**Water balance contd.**

- Bromus* 5176
  - Camellia* 5359
  - cereals 1722
  - Coffea* 4450
  - Cucumis*, cucumber 11035
  - Dactylis* 5168
  - Glycine* 5794, 9317, 10145, 11144
  - Gossypium* 6350, 8998, 9819
  - Hevea* 3492
  - Hordeum* 91, 2058, 4095, 5057, 5813, 7101, 7871, 8865
  - Lycopersicon* 7715, 8554
  - Manihot* 9368
  - Medicago* 67, 5215
  - Nicotiana* 7462
  - Oryza* 365, 3193, 8674
  - Pennisetum* 8672
  - Pisum* 3839
  - Poa* 8234
  - Populus* 3625, 8461, 10025, 10028
  - Prunus*, almond 7622
  - Prunus*, plum 6503
  - Pseudotsuga* 4597, 8491
  - Pyrus* 10871
  - Secale* 91, 3001, 5976
  - Secale*  $\times$  *Triticum*, triticale 1753, 3001, 5813, 7871
  - Solanum*, potato 9790
  - Sorghum* 2097, 7155
  - Triticum* 91, 151, 172, 191, 193, 1099, 1101, 1723, 1753, 2804, 2938, 3001, 3929, 5813, 6970, 6978, 7890, 9462, 10360, 10365
  - Vigna*, cowpea 4699
  - Zea*, maize 67
- Water melon (see Citrullus)**
- Waterlogging**
- Glycine* 6777
  - grasses 7237
  - Hordeum* 3094, 3095
  - Lycopersicon* 5629
  - Oryza* 4215, 6170, 8194, 9697
  - Prunus*, peach 9952
  - Saccharum* 2335
  - Trifolium*, minor species 9756
- Weather fleck, Nicotiana** 3420
- Weathering, Sorghum** 4133, 5069, 7151, 8146, 8148
- Weeds, Glycine** 3770
- Weight**
- Brassica*, Brussels sprouts 3685
  - Brassica*, cabbage 5581
  - Brassica*, red cabbage 5581
  - Medicago* 10659
  - Picea* 806
  - Pinus* 806
- Weight, technique, Hordeum** 6071
- Wheat (see Triticum)**
- Wheat grass (see Agropyron)**
- White clover (see Trifolium, white clover)**
- White ear**
- Euchlaena*  $\times$  *Zea*, maize 9545
  - Zea*, maize 4997
- Wide hybridization (see Hybridization, wide)**
- Willow (see Salix)**
- Wilt, unspecified**
- Gossypium* 531, 544, 2300, 2311, 3340, 3352, 3353, 3363, 5295, 6354, 6358, 7382, 7391, 9803, 9812
  - physiological races 553, 7390
- Wilt, unspecified, technique, Gossypium** 3371, 5305
- Wind**
- Citrus* 10891
  - Citrus*, lemon 10891
  - Fraxinus* 4587
  - Gossypium* 3365
  - Oryza* 4190
  - Saccharum* 9024
- Wine, quality (see Quality, of wine)**
- Winter habit (see Spring and winter habit)**
- Winter hardiness (see Cold resistance)**
- Wireless waves, Populus** 794
- Wood pulp, quality (see Quality, of wood pulp)**
- X rays**
- Arachis* 6458
  - Avena* 3994
  - Beta* 5636
  - Brassica*, oil crops 9057
  - Capsicum* 1419, 10841



**X rays contd.**

- Coriandrum* 11200  
*Cymbopogon* 3484  
*Festuca* 10638  
*Glycine* 965, 969, 8602  
*Hibiscus* 7403  
*Hordeum* 296, 1718, 8088, 10542  
*Lathyrus* 1295  
*Lotus* 472  
*Malus* 2470, 2471, 2472, 4511  
*Mentha* 2766  
*Nicotiana* 3426, 5349  
*Oryza* 1223, 1230, 2145, 7187  
*Phaseolus* 9293  
*Pisum* 1603, 6782, 6787, 9325  
*Prunus*, apricot  $\times$  *Prunus*, cherry 2487  
*Prunus*, cherry 1425, 2493, 2496, 3837, 4528  
*Solanum*, potato 5252  
*Triticum* 138, 177, 2902, 7921  
*Vicia*, broad bean 936  
*Vitis* 774, 10009
- Xanthomonas**  
*Brassica*, cabbage 828, 10998  
   physiological races 4620  
*Citrus* 1459, 1460  
*Citrus*, orange 1459  
   physiological races 1460  
*Fragaria* 3604  
*Glycine* 8597, 8598, 10136, 11135  
*Gossypium* 1349, 2310, 6357, 9007, 9820  
   physiological races 2309, 10721  
   India 9006  
   Pakistan 8994  
*Helianthus*, sunflower 9072  
*Lablab* 7800  
*Lycopersicon* 4654  
*Manihot* 2250, 3412, 3413, 3414, 4423, 6395, 9368  
   bibliography 3410  
*Oryza* 1203, 1230, 1233, 2166, 3167, 3168, 4218, 5115, 5139, 6142, 6177, 8157, 8206, 8216, 8917, 9699, 9700, 9701, 9702  
   physiological races 382, 1231, 2165, 2167, 8154  
   India 8916  
   Japan 383, 5138, 6176  
   review 384  
   review 1232, 5138  
*Panicum* 1176, 9626  
*Phaseolus* 1574, 2695, 2696, 4690, 5660, 8583, 10099, 11094, 11104  
*Prunus*, nectarine 9936  
*Prunus*, peach 5448, 9936, 9951  
*Prunus*, plum 1451  
*Saccharum* 4409, 4795, 5317  
   physiological races 8321  
*Setaria* 9629  
*Tripsacum*  $\times$  *Zea*, maize 4019  
*Vigna*, cowpea 1637  
*Vigna*, minor species 6744, 10126
- Xanthomonas, technique**  
*Fragaria* 3604  
*Manihot* 3411, 5336  
*Oryza* 8198, 8199  
*Panicum* 4108  
*Triticum* 1839
- Xanthosoma**  
   flowering 2359  
   germination 2359  
   germplasm banks 7843  
   hybridization 2359  
   sterility and fertility 2359  
   viruses, technique 3419
- Xenia**  
*Hordeum* 2049  
*Malus* 4512  
*Phaseolus* 5655  
*Phoenix* 7576  
*Pistacia* 5511
- Xiphiinema**, *Lycopersicon* 7721  
**Xiphiinema, technique**, *Prunus*, peach 2500  
*Xyleborus*, *Camellia* 9871  
**Xylem** (see also Vascular tissue)  
*Fraxinus* 10031  
*Lycopersicon* 3719, 5632  
*Pinus* 5536  
*Populus* 2565, 2567  
*Prunus*, peach 4532  
*Triticum* 193, 10331  
*Vitis* 777
- Xylem, colour**, *Daucus* 5546, 6602

**Xylocopa, Crotalaria** 2331**Yam** (see *Dioscorea*)**Yew** (see *Taxus*)**Yield**

- cereals 10247  
 crop plants 6858  
*Glycine* 7767  
*Malus* 3504  
*Medicago* 7277  
*Pennisetum* 4109  
*Secale* 10247  
*Triticum* 2804, 10268  
*Vaccinium* 753  
*Vicia*, broad bean 6683
- Yield components**  
*Agropyron* 8245  
*Agropyron*  $\times$  *Triticum* 123  
*Allium*, chives 10053  
*Allium*, leek 849  
*Amaranthus* 2661, 6199  
*Andropogon* 10646  
*Arachis* 649, 2438, 4484, 4485, 6456, 7503, 9078, 10829  
*Asparagus* 1528  
*Avena* 226, 228, 1901, 3003, 3006, 3997, 4930, 5966, 7988, 10406  
*Beta*, sugar beet 8325  
*Brassica*, Chinese cabbage 4616  
*Brassica*, kale 2617  
*Brassica*, oil crops 1397, 2399, 2400, 2403, 4453, 4459, 4461, 4462, 9053  
*Brassica*, rape 2398, 3460, 3461, 3664  
*Bromus* 6218, 7244  
*Cajanus* 2757, 3796, 3797, 3798, 6813, 6814, 9338, 10187  
*Capsicum* 9088, 9907, 9908, 10840  
*Carthamus* 2426, 5390, 6454, 8370, 10826  
*Carum* 10192, 11198  
*Cassia* 2455  
 cereals 86, 8694  
*Cicer* 984, 1604, 2749, 3788, 4757, 4758, 5708, 5709, 6790, 6791, 7792, 7793, 9332, 10181  
*Citrullus* 6637  
*Coffea* 6425  
*Corchorus* 3380, 10735, 10736  
*Cucumis*, cucumber 886, 3698, 7687  
*Cyamopsis* 1294  
*Dactylis* 4250, 4251, 6209, 6210  
*Elaeis* 7498, 7500  
*Eleusine* 2074, 5067, 9636  
*Euchlaena*  $\times$  *Zea*, maize 9545  
*Fagopyrum* 408, 8928, 9717  
*Festuca* 2197, 9735  
*Glycine* 964, 965, 972, 1588, 2713, 2718, 2727, 3766, 4717, 4720, 4727, 4728, 6749, 6756, 6762, 9318, 10138, 11149  
*Gossypium* 534, 539, 540, 548, 1340, 1344, 1345, 1346, 2299, 2301, 4379, 4383, 5283, 5293, 5298, 5299, 6351, 6352, 6353, 7375, 7380, 7382, 7386, 7387, 8306, 8307, 8308, 8990, 8992, 8993, 9004, 9803, 9805, 9811, 9812, 9815, 9816, 10709, 10712, 10716  
 grasses 8223, 8224  
*Guizotia* 9083  
*Helianthus*, sunflower 636, 1409, 2412, 2421, 3470, 7489, 7491, 9068, 9885, 9886, 9887, 10819, 10820, 10821  
*Hevea* 5408, 7529  
*Hibiscus* 561, 2324, 2327, 2329, 4401, 4402, 6369, 9832, 10740, 10741  
*Hippophae* 9150  
*Hordeum* 303, 304, 1148, 1149, 1152, 1164, 1700, 2028, 2039, 2045, 2046, 2805, 3108, 3111, 3112, 3116, 3131, 4078, 5035, 6069, 6083, 6092, 6101, 6102, 7100, 7101, 7103, 7107, 8072, 8075, 8117, 8849, 8854, 8857, 9410, 9600, 9606  
*Humulus* 5367  
*Ipomoea* 5272  
*Juglans* 5506  
*Lablab* 2759, 6812, 9336, 10185, 11193  
*Lathyrus* 9764  
*Lens* 9334, 9335, 11189  
*Linum* 2316, 3377, 3378, 4395, 9011, 9015, 9410, 9826, 9827  
*Lycopersicon* 896, 4640, 6656, 7706, 8544, 11045, 11046, 11049, 11050  
*Macrotyloma* 2758, 6818

**Yield components contd.**

- Manihot* 3405  
*Medicago* 445, 1261, 1268, 4284, 5220  
*Momordica* 2634, 11039  
*Musa* 3605, 9996  
*Nicotiana* 604, 3424, 10785  
*Oryza* 363, 368, 1213, 1225, 2122, 2131, 2133, 2134, 2138, 2140, 2145, 3182, 3183, 4185, 4215, 4217, 5116, 5123, 5128, 5131, 5132, 5133, 6168, 7184, 8175, 8902, 9663, 9685, 9688  
*Panicum* 1172, 3132, 3133  
*Pennisetum* 2072, 3136, 4110, 4111, 8875, 9631  
*Phalaris* 3228  
*Phaseolus* 1572, 2688, 5656, 5657, 6711, 8574, 8575, 8578, 9293, 11102  
*Phleum* 4256  
*Picea* 10040  
*Pisum* 978, 981, 1598, 1603, 3779, 6780, 6784, 6785, 7784, 9324, 10164, 10168  
*Poa* 9720  
*Psophocarpus* 6797, 6800, 6808, 8626, 8633, 8640  
*Raphanus* 10988  
*Rubus*, raspberry 741, 9978  
*Saccharum* 5319, 5320  
*Secale* 233, 1048, 1114, 1914, 7018  
*Secale*  $\times$  *Triticum*, triticales 222, 223, 1048, 1880, 1881, 1889, 1892, 1893, 1896, 2992, 4922, 4923, 5940, 6992, 6996, 6998, 7000, 7977, 7982, 8779, 10398  
*Sesamum* 2408, 4469, 5376, 10817  
*Solanum*, egg plant 927, 1563, 2658, 6669, 9285, 11070, 11071  
*Solanum*, potato 4340, 7320, 8281, 8970, 9779, 9780, 10685  
*Sorghum* 334, 2082, 2088, 2090, 3143, 3146, 3154, 4116, 4139, 4140, 4143, 5075, 6122, 7125, 8134, 8137, 9643, 9645, 9646, 10571, 10573, 10575, 10577, 10579  
*Trachyspermum* 2770, 11197  
*Trichloris* 5204, 5205  
*Triticum* 81, 96, 110, 124, 141, 145, 150, 158, 162, 166, 170, 175, 180, 204, 223, 1048, 1060, 1061, 1062, 1073, 1074, 1075, 1085, 1098, 1707, 1709, 1732, 1747, 1748, 1756, 1757, 1760, 1763, 1766, 1803, 1804, 1806, 1808, 1809, 1822, 2866, 2887, 2890, 2909, 2910, 2917, 2930, 2933, 2935, 2939, 2940, 3893, 3894, 3898, 3901, 3925, 3931, 3934, 3940, 4847, 4859, 4862, 4866, 5846, 5849, 5857, 5881, 5883, 5891, 5902, 6887, 6888, 6892, 6894, 6901, 6902, 6917, 6918, 6921, 6932, 6935, 6939, 6940, 6945, 6947, 6948, 6949, 6950, 6954, 7898, 7900, 7917, 7967, 8712, 8714, 8732, 8739, 8740, 8749, 9455, 9456, 9457, 9460, 9461, 9462, 9463, 9464, 9465, 9469, 10291, 10311, 10312, 10314, 10317, 10326, 10328, 10329, 10334, 10337, 10354, 10356, 10358  
*Vicia*, broad bean 938, 1567, 2669, 2677, 3727, 5644, 6688, 6690, 10091, 10095  
*Vicia*, vetch 3290  
*Vigna*, cowpea 2701, 3739, 4697, 6735, 6736, 9300, 9302, 10114, 10115, 10116  
*Vigna*, minor species 954, 955, 2705, 2708, 2709, 2710, 3742, 6743, 7759, 8594, 10124, 11114, 11117, 11118  
*Vitis* 776, 2541, 8447, 9165  
*Zea*, maize 256, 258, 261, 277, 1121, 1631, 1928, 1930, 1944, 1958, 1963, 1965, 1997, 1998, 2000, 3037, 3053, 3054, 3063, 4018, 4020, 4035, 4049, 4050, 4991, 5978, 5980, 5986, 5995, 6002, 6005, 6021, 6030, 6031, 6032, 6047, 7042, 7050, 8014, 8038, 8046, 8049, 8792, 8806, 8816, 8825, 8826, 9575, 10470  
*Zea*, popcorn 1141, 5021  
*Zingiber* 659
- Yield components, technique**  
 crop plants 5783  
*Phaseolus* 5783  
*Pisum* 4750  
*Zea*, maize 1979
- Yield, technique**, *Saccharum* 2332



**Zea, maize**

*Acremonium* 3078, 9588  
 altitude 1120, 8018  
 andrecium 6036  
 andrecium, colour 10434  
 androgenesis 9538  
 aneuploidy 58, 251, 1947, 1954, 3031, 3035, 4987, 4988, 5990, 6019, 8030, 8034, 9550  
 aneuploidy, technique 6018  
 anther 1131, 6042  
 anther culture 1113, 1967, 4044, 4968, 4985, 4987, 4988, 4989, 6037, 8695, 8813, 8814, 10465  
*Aspergillus* 4068, 8063, 10494  
 asynapsis 4015, 10458  
 $\beta$  rays 264  
 back crossing 275, 10460  
 book 9523  
 breeding  
   Europe 9530  
   German Federal Republic 4808  
   Hungary 8794, 9546, 9547  
   India 9519  
   Indonesia 1117  
   Italy, review 1935  
   Ivory Coast 3829  
   Kenya 4009  
   Moldavian SSR 4948  
   Pakistan 5977  
   review 4947  
   S. Korea 4007, 4802  
   South Africa 1918, 1919  
   Suriname 5983  
   symposium 1915  
   Ukrainian SSR 1938, 7024, 7027, 7028, 7029, 10421  
   USA 1118, 1927, 3025, 3026, 3083, 4945, 4946, 5984, 9518  
   USSR 43, 7023, 9522  
   Yugoslavia 8012  
*Busseola* 1925  
 cell culture 21, 11203  
 cell division 3040, 4972, 7045, 9549, 10461  
 centres of origin or diversity 9580  
*Cephalosporium* 8059  
 chemicals, as nutrients  
   calcium 4815  
   magnesium 4815  
   miscellaneous 7047, 8056  
   nitrate 4975  
   nitrogen 1037, 1921, 1992, 3061, 3062, 3063, 3065, 3392, 5982, 6006, 8038, 8824, 8825, 9527, 9583, 9584, 10470, 10480, 10487  
   phosphorus 77, 1921, 4815, 5000, 6006, 8828, 9585, 10480, 10487  
   potassium 1921, 5000, 6006, 10480, 10487  
   sulphate 1969  
   zinc 6050  
 chemicals, as plant constituents  
   ABA 3042, 4037, 4048, 4981  
   o-acetylserinesulphhydrolase 4034  
   adenosine diphosphate glucose phosphorylase 4984  
   adenosine triphosphatase 6011  
   adenosine triphosphate 4040  
   adenosine triphosphate sulphurylase 4034  
   ADPglucose pyrophosphorylase 6009  
   ADPglucose-starch glucosyltransferase 1996  
   aflatoxin 4068  
   albumin 1032, 1036, 1992, 6048, 8822, 9579, 10480  
   alcohol dehydrogenase 253, 1953, 1954, 1977, 3032, 3050, 4013, 4977, 5990, 8804, 10440, 10479  
   alcohols 10469  
   aldehydes 10469  
   aminoacids 274, 1018, 1029, 1030, 1984, 3058, 4998, 6049, 7044, 8815, 9578  
   aminoacids, technique 10481  
   aminopeptidase 1132, 1983, 4977, 7055  
   amylose 8037, 10436  
   anthocyanins 1957, 3034, 3053, 4039, 4961, 7035, 8031, 8800  
   anthranilic acid 9571  
   arginine 1126, 6045

**Zea, maize contd.**

chemicals, as plant constituents contd.  
   1,4-benzoxazin-3-ones 9593  
   calcium 1986, 4973, 8044  
   carbohydrates 4024, 4041, 4052  
   carotene 4992  
   carotenoids 3080, 4045, 4981, 4992, 6011, 7046, 7056, 8031  
   catalase 1129, 1132, 1946, 1973, 1989, 3042, 4037, 4977, 4982, 4983, 7038, 8035  
   cellulose 5004  
   chlorine 1986  
   chlorophyll 1952, 1985, 3041, 3046, 3049, 4016, 4033, 4045, 4992, 6011, 7034, 7046, 7847, 8019, 9535, 9560, 10245, 10477  
   copper 8044  
   cytochrome oxidase 6042, 7052  
   deoxyribonuclease 10462  
   DIMBOA 7068, 9593, 9594  
   endopeptidase 1970, 3032, 4977  
   enzymes 5981, 5991, 6052, 7856, 8812, 9533  
   esterase 1129, 2856, 5990  
   fatty acids 272, 6054, 7064  
   flavanone synthase 4953  
   fructose 8821  
   GA 7057  
   globulin 1032, 1992, 6048, 6052, 7062, 8822, 9579, 10480  
   glucose 8821  
   glucose-6-phosphate dehydrogenase 5990  
   glucose-6-phosphate ketoisomerase 1996  
   glutamate dehydrogenase 1036, 1954, 8804  
   glutamate oxaloacetate transaminase 1036, 4977, 8804  
   glutamate synthase 4053  
   glutamic acid 1126, 8792, 8822  
   glutamine synthetase 4053  
   glutelin 1032, 1992, 4057, 6048, 8029, 8822, 10480  
   heterochromatin 3040, 9551, 10453  
   histone 4990  
   IAA 5003, 6050  
   iron 7064, 8044  
   isocitrate dehydrogenase 5990, 8804, 10463  
   isoleucine 6045, 8792  
   leucine 1988, 3047, 6045, 8792, 8822  
   lignin 2010, 3059, 3060, 5004, 7025  
   linoleic acid 273, 1947  
   lipids 2862, 4980  
   lysine 260, 266, 267, 268, 270, 271, 274, 275, 1018, 1029, 1030, 1032, 1036, 1037, 1126, 1133, 1919, 1944, 1981, 1992, 1993, 1994, 1996, 2010, 3033, 3056, 3058, 4009, 4024, 4046, 4053, 4055, 4056, 4057, 4058, 4063, 4945, 4995, 4997, 4998, 5014, 5994, 5997, 6006, 6023, 6045, 6046, 6048, 6049, 6050, 6051, 6871, 7025, 7026, 7059, 7060, 7061, 7062, 7063, 7064, 8045, 8702, 8792, 8819, 8820, 8821, 8822, 9579, 9582, 10425, 10437, 10480, 10484, 10485, 10486, 10504  
   lysine, technique 1039, 4054, 4996, 8036, 10481  
   magnesium 7047, 8044, 9521  
   malate dehydrogenase 1132, 1945, 1974, 3032, 3035, 3038, 4012, 4954, 4962, 4963, 4977, 4979, 5990, 6027, 7033, 8804, 9563, 10463  
   maltose 10436  
   manganese 7064, 8044, 9521  
   metabolites 8811  
   methionine 1040, 3050, 6046, 6871, 8792  
   monosaccharides 8821  
   NADP malate dehydrogenase 4045  
   NADP malic enzyme 4045  
   NDP sugar-starch glucosyltransferase 10428  
   niacin 272  
   nicotinic acid 8811  
   nitrate 3041, 4974  
   nitrate reductase 3041, 4949, 4974, 4975

**Zea, maize contd.**

chemicals, as plant constituents contd.  
   nitrogen 260, 1970, 3041, 4041, 4973, 4974, 4975, 7047, 8815, 9556  
   nucleic acids 246, 250, 1943, 1948, 1975, 1976, 1978, 1988, 3040, 3048, 3858, 4017, 4022, 4055, 4971, 4990, 5996, 6029, 7051, 8020, 8026, 8027, 8043, 9531, 9532, 9573, 9581, 10432, 10438, 10468  
   oil, fatty 272, 273, 3058, 4998, 8816  
   oleic acid 272, 273, 1947  
   peroxidase 1129, 3039, 8820, 8823, 9542  
   phenols 4819, 8704  
   phosphoenolpyruvate carboxylase 1952, 1990, 4045, 6011, 7046  
   phosphoglucomutase 3032, 8804  
   6-phosphogluconate dehydrogenase 3032, 5990, 6052, 9562  
   phosphohexose isomerase 3032, 8804  
   phosphorus 4041, 4973, 7047, 8044, 9521  
   phytoalexins 4065  
   pigments 1128, 1984  
   polypeptides 6028, 7062, 9568  
   polyphenol oxidase 8820  
   polysaccharides 1961  
   porphyrins 1985  
   potassium 272, 1986, 4041, 4973, 8044, 9521  
   potassium sulphate 4034  
   prolamin 1036, 8822, 10242, 10480  
   proline 5006, 6010, 7044, 8028  
   proline, technique 2005  
   protease 3041  
   protease inhibitor 8064  
   protein 246, 266, 267, 269, 270, 271, 274, 275, 1018, 1030, 1032, 1036, 1037, 1129, 1961, 1981, 1984, 1988, 1991, 1994, 1995, 3045, 3047, 3050, 3058, 3062, 3068, 4024, 4041, 4052, 4055, 4056, 4057, 4063, 4992, 4994, 4998, 5812, 5994, 6006, 6022, 6046, 6048, 6051, 6871, 7025, 7026, 7048, 7059, 7062, 7064, 8029, 8050, 8702, 8815, 8816, 8819, 8820, 9521, 9556, 9557, 9578, 9579, 10468, 10483, 10484, 10485  
   protein, technique 1039, 4995, 9411, 9553, 9554, 9555  
   protochlorophyllide 1985  
   protoporphyrins 4016  
   riboflavin 272  
   ribonuclease 3068, 8045  
   ribulose 1,5-diphosphate carboxylase 4017, 4045, 6011, 7046, 8019  
   starch 269, 272, 1036, 3064, 3066, 8045, 8816, 10482  
   starch branching enzyme 8818  
   starch synthetase 8037, 8818  
   stearic acid 272  
   sucrose 260, 8821  
   sucrose phosphate synthetase 3044  
   sucrose synthetase 4978, 8025, 8037, 10432  
   sucrose-UDP glucosyltransferase 1996  
   sugar 246, 3066, 4040, 10436  
   sulphydryl compounds 4037  
   superoxide dismutase 4976  
   thiamine 8811  
   threonine 1126, 10439, 11203  
   transaminase 2856  
   trypsin inhibitor 3057, 7064  
   tryptophan 1018, 1032, 1944, 1994, 3033, 3058, 5994, 6006, 6045, 6048, 6050, 6051, 6871, 7060, 7061, 8816, 10503  
   UDPglucose : flavonoid 3-O-glucosyltransferase 4039, 4953  
   uridine 1988  
   valine 6046  
   water 5003  
   wax 6054, 10469  
   zein 260, 268, 1030, 1032, 1034, 1133, 1950, 1992, 3047, 4053, 4057, 4994, 5997, 6048, 7044, 7061, 7062, 8029, 8045, 9579, 10452, 10486  
   zein, technique 4996  
   zinc 8044, 9521  
 chemicals, cytological effects  
   captan 4970  
*Cochliobolus* toxin 284



*Zea, maize contd.*

chemicals, cytological effects *contd.*  
 colchicine 8810  
 cycloheximide 4972, 9549  
*p*-dichlorobenzene 7045  
 ethylene diaminetetraacetic acid 4025  
 kryptofix 222 4025  
 chemicals, fertility and sex, effects,  
 surfactants, nonionic 1980  
 chemicals, general effects  
 ABA 3042  
 aflatoxin 8063  
 alachlor 3055, 3080, 3081, 4071  
 aluminium 4815  
 ammonium sulphate 10490  
 atrazine 3049, 3080, 3081, 8054  
 BA 7043  
 butylate 3081  
*Cochliobolus* toxin 283, 285, 1976,  
 2008, 2825, 3077, 4038, 8061, 9566,  
 9573, 9591, 10501  
 cycloheximide 246  
 diazinon 8054  
 1,2-dichloropropane 1921  
 1,3-dichloropropene 1921  
 EPTC 3079  
 GA 1986  
 herbicides 8054  
 hydroxycarvacryl trimethylammonium  
 chloride 7043  
 insecticides 8054  
 IPA 7043  
 lysine 8036, 9577, 10439  
 mancozeb 10238  
 methomyl 281, 8061, 9591  
*Mycosphaerella* toxin 3077, 8061,  
 9591  
 NAA 7043  
 oryzalin 2862  
 prometryne 3080  
 streptomycin 7053  
 threonine 8036, 9577, 10439  
 TIBA 7043  
 trifluralin 2862  
 zinc 8044  
 chemicals, mutagenic effects  
 diethyl sulphate 8807  
 ethidium bromide 9565  
 ethyl methanesulphonate 2833, 6007,  
 6010, 6063, 7044, 7067, 8807, 10450  
 furylfuramide 7847  
*Mangifera* extract 1957  
*N*-methyl-*N*-nitro-*N*-nitrosoguanidine  
 7044  
*N*-nitroso-*N*-methylurea 8807, 10245  
*Chilo* 7073  
 chimeras 6036, 7034, 10434, 10466  
 chloroplasts 249, 1985, 3858, 4017, 4033,  
 4992, 6011, 6034, 9531, 9568, 9569,  
 10438  
 chromatids 4969, 8808  
 chromatids, technique 8033  
 chromosome translocation 58, 1943,  
 1947, 1948, 1956, 1958, 1960, 3035,  
 3038, 4013, 4016, 4960, 4963, 4964,  
 4980, 4983, 5990, 5993, 6013, 6014,  
 6018, 6019, 7038, 8023, 8035, 8039,  
 9535, 9552, 10454, 10455, 10456,  
 10457, 10460  
 chromosomes, aberrations 4972, 6017,  
 7045, 9549, 10245, 10459  
 chromosomes, accessory 1116, 3040,  
 4969, 6019  
 chromosomes, addition and substitution  
 9544, 10454  
 chromosomes, breakage 4025  
 chromosomes, morphology 1116, 1125,  
 1129, 4026, 4960, 6015, 7065, 10429,  
 10458  
 chromosomes, morphology, technique  
 1703, 6016, 9551, 9552, 10453  
 climate 1929  
*Cochliobolus* 281, 285, 1687, 1976,  
 2825, 3029, 3072, 3073, 3077, 4038,  
 4064, 4946, 6056, 6058, 6059, 6063,  
 7053, 8043, 8058, 8060, 10238, 10493,  
 10495, 10501  
 physiological races 2008, 4069  
 Ivory Coast 7069  
 USA 8062  
*Cochliobolus*, technique 10501  
 cold, effect of 1969, 2002, 5985, 6034,  
 9558, 9560, 9587

*Zea, maize contd.*

cold resistance 279, 280, 1119, 1969,  
 2002, 2003, 2004, 3069, 4062, 5003,  
 5005, 6053, 6054, 7024, 7037, 7046,  
 7049, 8048, 8057  
*Colletotrichum* 6056, 8058  
*Colletotrichum*, technique 1924, 6057  
 colour 9536, 9576  
 combining ability 1916, 1991, 1995,  
 3037, 3044, 3045, 3054, 4018, 4021,  
 4063, 5978, 5979, 6004, 6005, 6021,  
 7040, 7042, 7050, 8012, 8046, 8803,  
 9548, 10443, 10451  
*Cochliobolus* 10501  
*Diatraea* 10508  
 flowering 8801  
 growth period 8024  
 height 8802  
 protein 10485  
 combining ability, technique 4952  
 complementation 8025  
 complex loci, anthocyanins 8800  
 composite varieties 7021, 9582, 10423  
 computer simulation 1934, 4010  
 controlling elements 6009, 7035, 10427,  
 10428, 10432, 10441, 10447, 10448,  
 10449, 10464  
 crossing over 4025, 4970, 6014, 8809,  
 10454, 10457  
 cytoplasmic inheritance 285, 3077, 3858,  
 4017, 5992, 7034, 8026, 8027, 9524  
*Cochliobolus* 8043  
 hermaphroditism 8041  
*Trichometasphaeria* 8830  
 defoliation, artificial 2001, 8826, 9572  
 density of stand 262, 277, 1130, 1136,  
 1930, 1933, 1937, 1998, 2000, 3052,  
 3064, 4030, 4059, 5001, 5002, 5982,  
 6021, 8013, 8038, 8056, 8794, 8827,  
 9582, 10476, 10488  
 desynapsis 4027  
 development and growth 246, 1036,  
 1128, 1952, 1968, 3047, 4040, 4067,  
 4068, 5002, 6022, 6036, 6043, 7055,  
 7058, 8816, 9558, 9577, 10466, 10467,  
 10476  
*Diabrotica* 1920, 5015, 10474  
 diallel analysis 282, 1928, 3037, 3044,  
 3054, 4018, 4952  
*Diatraea* 1920, 3083, 4072, 5011, 6067,  
 10422, 10508  
 digestibility 3059, 3060, 8051, 8702  
*Diploia* 1137, 6056  
 disease lesion 7067, 7068  
 dormancy 4981  
 electrical properties 4021  
 embryo 267, 1040, 1988, 4032, 5998,  
 6007, 8031, 8807  
 embryo, colour 4961  
 embryo culture 253, 4032, 4823, 6008,  
 8036, 8047, 9577  
 embryo, weight 4056, 4057  
 endosperm 267, 1030, 1037, 3047, 4024,  
 4032, 6007, 6009, 10428, 10464  
 endosperm, anatomy 4965  
 endosperm, colour 3034, 4957, 4961,  
 7035  
 endosperm, texture 270, 274, 3057, 4046,  
 4053, 5001, 5999, 6047, 6048, 7058,  
 7061, 8047, 9579, 10425, 10437, 10503  
 endosperm, variegation 4955, 4956,  
 4957, 4958  
 endosperm, weight 4056, 4057  
 epistasis 6048, 7061, 10437  
*Erwinia* 3070, 4946, 10491  
 evolution, general theory 1134  
 experimental designs 3027, 5988, 8959  
 fertility and sterility 4966  
 fertilization, sexual 1964, 4042, 4043  
 fertilization, sexual, technique 6044  
 flooding 10489  
 flowering 1964, 3056, 5982, 7054, 8794,  
 8801, 10478  
 fluorescence 9535  
 foliage area 1952, 4041, 4059, 8038  
 foliage area, technique 6026  
 forage 3064, 6020, 6031, 6043  
 fungi 270, 1920, 5009  
 review 6059  
*Fusarium* 3029, 4819, 5992, 6056, 9589,  
 9590, 10498  
 $\gamma$  rays 264, 2834, 6063, 8792, 10451

*Zea, maize contd.*

gene dosage 4983, 5990, 6013, 6048,  
 7038, 10428, 10449  
 gene interaction 255, 1949, 3034  
 gene location 1034, 1945, 1946, 1947,  
 1948, 1974, 1985, 1989, 2825, 3032,  
 3035, 3038, 3043, 4013, 4032, 4980,  
 5990, 6007, 6010, 6027, 7067, 8035,  
 9539  
 chlorophyll 9535  
 nucleic acids 8020  
 seed 10450  
 sterility, male 9534  
 genetic resources 6853, 10431  
 genetic variance 4991, 5995, 6002, 6003,  
 6004, 6030, 6046, 7036, 7037, 8803  
*Acremonium* 9588  
 ammonium sulphate 10490  
 carotenoids 7046  
 chlorophyll 7046  
 flowering 8801  
 growth period 8024, 10506  
 height 8802  
 nitrogen 9556  
*Ostrinia* 10506  
 phosphoenolpyruvate carboxylase 7046  
 photosynthesis 7046  
 protein 8050  
 ribulose 1,5-diphosphate carboxylase  
 7046  
 yield components 9582  
 genetics 3030, 9540, 9541  
 adenosine diphosphate glucose  
 phosphorylase 4984  
 ADPglucose pyrophosphorylase 6009  
 albumin 9579  
 alcohol dehydrogenase 253, 1953,  
 3032, 3050, 4013, 4977, 8804, 10440,  
 10479  
 alcohols 10469  
 aldehydes 10469  
 aminopeptidase 1132, 4977, 7055  
 amylose 10436  
 andrecium, colour 10434  
 anthocyanins 3034, 3053, 4039, 4961,  
 7035, 8031, 8800  
 anthranilic acid 9571  
 asynapsis 4015  
 carbohydrates 4052  
 carotenoids 7056, 8031  
 catalase 1132, 1946, 1973, 1989, 3042,  
 4977, 4982, 4983, 7038, 8035  
 chlorophyll 1985, 4016, 4033, 7847  
 chloroplasts 4033  
*Cochliobolus* 2825, 6059, 10501  
 cold, effect of 9587  
 cold resistance 2002  
 colour 9536  
 disease lesion 7067, 7068  
 embryo 5998, 8031, 8807  
 embryo, colour 4961  
 endopeptidase 3032, 4977  
 endosperm, anatomy 4965  
 endosperm, colour 3034, 4957, 4961  
 endosperm, texture 270, 274, 4046,  
 4053, 5997, 5999, 6048, 7058, 7061,  
 8047, 10437  
 endosperm, variegation 4955, 4956,  
 4957, 4958  
 enzymes 5981, 5991, 7856  
 esterase 2856  
 fertility and sterility 4966  
 flavanone synthase 4953  
 flowering 3056  
 globulin 9579  
 glutamate dehydrogenase 8804  
 glutamate oxaloacetate transaminase  
 4977, 8804  
 growth period 6035  
 habit 6012  
 height 4009, 4035, 6000  
 inflorescence 1959, 9571, 10427  
 isocitrate dehydrogenase 8804, 10463  
*Kabatiella* 10500  
 leaf 9536  
 leaf, colour 1984, 4033  
 lignin 3059, 3060  
 ligule 4028  
 lysine 266, 267, 270, 1992, 1994, 3033,  
 3056, 4009, 4046, 4053, 4055, 4056,  
 4057, 5014, 5994, 5997, 7061, 7062,  
 7063, 7064, 8045, 9579, 10437,  
 10439



**Zea, maize contd.**

## genetics contd.

- malate dehydrogenase 1132, 1945, 1974, 3032, 3035, 3038, 4012, 4954, 4962, 4963, 4977, 4979, 6027, 7033, 8804, 9563, 10463
- mutation 4014, 4955, 4958, 4959, 7034
- NDP sugar-starch glucosyltransferase 10428
- nucleic acids 1948, 4055
- peroxidase 9542
- phosphoglucumutase 3032, 8804
- 6-phosphoglucuronate dehydrogenase 3032, 9562
- phosphohexose isomerase 3032, 8804
- photosynthesis 3043
- porphyrins 1985
- potassium sulphate 4034
- proline 8028
- protein 266, 267, 1994, 4052, 5994
- protochlorophyllide 1985
- protoporphyrins 4016
- Pseudomonas* 2006
- Puccinia* 6059
- review 4947
- root 4986
- Sclerospora* 2006
- seed 8807
- seed, colour 1936, 4028, 5993, 6001, 9543, 10441
- seed, size 8029
- seed, texture 10436
- seedlings 4986
- Setosphaeria* 241, 1922, 3029, 3074, 4034, 4065, 5007, 6056, 6059, 8021
- sex 1959
- starch 8045
- starch branching enzyme 8818
- starch synthetase 8818
- stem 10435
- sterility, male 1131, 1959, 1960, 9565, 9567
- sterility, male, cytoplasmic 6041, 9538
- sucrose synthetase 4978, 8025, 10432
- sugar 4046, 10436
- superoxide dismutase 4976
- threonine 10439
- transaminase 2856
- tryptophan 1994, 3033, 5994, 7061
- UDPglucose : flavonoid 3-O-glucosyltransferase 4039, 4953
- viruses 10512
- vivipary 7056
- wax 10469
- zein 1034, 5997, 7061, 8045, 9579
- genotype × environmental interaction 280, 1916, 1995, 4011, 4036, 6020, 8044, 8806, 8824, 10470
- geography 7036, 7065
- germination 246, 1973, 1988, 2002, 2003, 3042, 3046, 4040, 4046, 4051, 4060, 4062, 5003, 5982, 7037, 8817, 9574, 9587
- germplasm banks
  - Colombia 8793
  - Mexico 8679
  - Ukrainian SSR 7025
  - USA 9540
- germplasm releases, USA 10422
- Gibberella* 1993, 4063, 5008, 6056, 6061, 6062, 7058, 8064, 10498
- Gibberella*, technique 4063, 5010, 6060, 9592
- Glomerella* 1137
- gravity 4048
- growth period 254, 255, 256, 258, 259, 269, 1138, 1631, 1916, 1929, 1936, 1938, 1949, 1965, 1972, 1981, 1997, 2009, 3025, 3026, 3041, 3051, 3053, 3062, 4008, 4029, 4030, 4031, 4036, 4041, 4968, 4991, 4993, 5987, 5992, 6003, 6020, 6022, 6031, 6032, 6035, 7021, 7024, 7025, 7027, 7028, 7036, 7049, 7054, 7060, 8038, 8794, 9520, 9522, 9530, 9537, 9548, 9564, 9576, 10471, 10472, 10476, 10478, 10506
- gynecium 7043, 10433
- habit 1631, 6012, 8030
- review 1130
- haploidy 252, 253, 4985, 4987, 4988, 5998, 8810, 8814, 9538, 10465
- harvest index 8051
- harvesting 3064, 6031

**Zea, maize contd.**

- harvesting, mechanical 1982, 7066
- heat and drought resistance 282, 3066, 3068, 5006, 7020, 9520, 9529, 9586, 10424
- review 1721
- heat and drought resistance, technique 92, 2005
- heat, effect of 4037, 4051, 10245
- height 1960, 1965, 1982, 1986, 4009, 4035, 4049, 4968, 5018, 5995, 6000, 6003, 6012, 7037, 8029, 8038, 8802, 9537, 9566, 10470
- Heliothis* 2012, 4947, 6067, 7072, 8063, 10504
- heritability 255, 1122, 1928, 1944, 3052, 4020, 4046, 4050, 5005, 5995, 6002, 6003, 6022, 6023
- carotenoids 7046
- chlorophyll 7046
- flowering 8801
- germination 8817
- growth period 8024, 10506
- Kabatiella* 10500
- Ostrinia* 10506
- phosphoenolpyruvate carboxylase 7046
- photosynthesis 7046
- ribulose 1,5-diphosphate carboxylase 7046
- Sclerospora* 10499
- hermaphroditism 1959, 8041
- heterosis 246, 249, 255, 261, 1123, 1928, 1952, 1988, 3036, 4010, 4020, 4021, 4022, 4049, 4990, 4991, 5980, 6006, 7040, 7042, 7057, 7863, 8806, 9520, 9544, 10451, 10477
- flowering 8801
- height 8802
- lodging 10426
- yield 10426
- heterozygosis 249, 9537
- heterozygosis, technique 1950
- history and evolution 4999, 7065, 7850, 8052, 8823, 9580, 9581
- review 276
- history and evolution, technique 10242
- homozygosis 4044
- hybrid varieties 237, 238, 241, 242, 1121, 1123, 1940, 1941, 3029, 4007, 5986, 10443, 10487
- hybrid varieties, technique 1963, 1964
- hybridization 1678, 3024, 6017, 10504
- hybridization, interspecific 8684
- hybridization, technique 10442
- inbreeding 255, 261, 275, 1123, 2811, 3024, 3046, 3083, 7020, 8046, 8824, 8825, 9524
- inflorescence 1929, 1959, 6036, 7034, 8030, 9571, 10427, 10484
- inflorescence, length 9595
- inflorescence, number 262, 1124, 1930, 1949, 1981, 1987, 3024, 3025, 3052, 5982, 6003, 6021, 7024, 7036, 8013, 8049, 9522
- inflorescence, size 261, 262, 9564
- inflorescence, weight 7036
- inhibitors, alcohol dehydrogenase 10440
- insects 6067
- internode 6036
- internode, number 6035
- internode, size 3067, 5004
- irrigation 67, 282, 8056
- Kabatiella* 3075, 10500
- land races 1116, 10431
- laser beams 10478
- leaf 6054, 9521, 9536
- leaf, colour 1984, 4033
- leaf, number 259, 3046, 4047
- leaf, shape 8029
- leaf, size 1124, 4047
- lethals 1985, 4016, 6007, 6008
- light, effect of 1990, 4033, 4048, 6057, 8058, 10245, 10452, 10461
- ligule 4028, 7025
- linkage 4, 264, 1034, 1132, 1946, 1974, 1989, 3032, 3035, 3038, 3074, 4960, 4962, 4963, 4965, 4979, 4986, 5991, 6000, 6001, 7035, 8035, 9539, 9541, 9562, 10429, 10430
- alcohol dehydrogenase 8804
- anthocyanins 8031, 8800
- carotenoids 8031
- embryo 8031

**Zea, maize contd.**

## linkage contd.

- enzymes 9533
- glutamate dehydrogenase 8804
- glutamate oxaloacetate transaminase 8804
- isocitrate dehydrogenase 8804, 10463
- malate dehydrogenase 8804, 10463
- phosphoglucumutase 8804
- phosphohexose isomerase 8804
- seed, size 8799
- lodging 1926, 1982, 3026, 3029, 3067, 4035, 4946, 5004, 5987, 5992, 6021, 6025, 8038, 8794, 8829, 9520
- lodging, technique 6055
- Macrophomina* 6056
- maternal effects, yield components 8792
- matrocliny 252
- mechanical injury 7066
- meiosis 251, 1955, 1956, 1957, 4968, 6017, 6019, 8032, 8034, 8808, 8809, 10455, 10457, 10458, 10459
- Microdochium* 9589, 9590
- mitochondria 77, 250, 281, 284, 285, 1975, 1976, 2008, 3036, 3048, 4971, 6028, 6029, 6042, 7052, 7863, 8043, 8061, 9532, 9557, 9561, 9591
- mixoploidy 8814
- mixtures of crops or genotypes 7850
- modifiers 270, 1959, 1974, 1985, 1989, 4012, 4016, 4955, 4956, 4958, 4961, 6001, 6012, 6027
- embryo 8807
- lysine 9579
- seed 8807
- zein 9579
- molecular genetics 1943, 4971, 5996, 7051, 9531, 9532, 10432, 10438
- Mucor* 9590
- multiple alleles 4012, 9562, 10463
- malate dehydrogenase 9563
- multiple genes 4012, 4963, 4979, 9562, 10463
- nucleic acids 8020
- Setosphaeria* 8021
- multivariate analysis 1997
- mutation 253, 1030, 1032, 1034, 1036, 1953, 1984, 1985, 1986, 1990, 3038, 3039, 3043, 3059, 4014, 4024, 4032, 4033, 4053, 4953, 4955, 4957, 4958, 4959, 4961, 4967, 4981, 5999, 6009, 6011, 6012, 6035, 7034, 7043, 7044, 7062, 7068, 8019, 8028, 8029, 8036, 10428, 10434, 10447, 10448
- alcohol dehydrogenase 10440, 10479
- anthocyanins 8031
- book 263
- carotenoids 8031
- chlorophyll 9535, 10477
- colour 9536
- embryo 8031
- habit 8030
- inflorescence 8030, 9571
- leaf 9536
- meiosis 8032
- metabolites 8811
- mitochondria 8061
- photosynthesis 9568, 9569
- seed, size 8799
- seed, variegation 10449
- thiamine 8811
- mutation, induced 264, 1029, 1124, 1678, 1957, 2833, 2834, 4953, 6007, 6008, 6010, 6063, 7044, 7067, 7847, 7892, 9537, 9546, 9547, 10451
- chlorophyll 10245
- embryo 8807
- flowering 10478
- growth period 9548, 10478
- leaf 9521
- seed 8807, 10450
- zein 10452
- mycoplasmas 2013
- Mycosphaerella* 3077, 8043
- nematodes 1921
- neutrons 9548
- nondisjunction 1956, 3040, 5993
- nucleolus 8020
- nucleolus, number 4968
- Oscinella* 4819
- Ostrinia* 1920, 2011, 3082, 4947, 5012, 6066, 8065, 9593, 10506
- Ostrinia*, technique 5013, 7070



**Zea, maize contd.**

outcrossing 7856  
 pathology 4061  
 photoperiodism 259, 1931, 1962, 4047, 4993, 6024  
 photosynthesis 249, 1927, 1990, 3043, 3049, 4045, 4058, 6006, 6053, 7046, 8816, 9558, 9568, 9569  
*Phyllosticta* 281  
 physiology 1927  
 plant introduction  
   from USSR 8797  
   to Rwanda 8797  
 pleiotropy 6868  
 pollen 1961, 1966, 1980, 3045, 4966, 6033, 8042, 8054, 10452  
 pollen, size 8039, 9570  
 pollen, size, technique 6881  
 pollen, technique 8039, 9555  
 pollination 1963, 1964, 1966, 7050, 8042, 10471  
 pollination, technique 6044, 8040, 9572  
 polyploidy 6017, 6881, 7850, 9550, 10459  
*Pratylenchus* 10507  
 protoplasts 10501  
*Pseudomonas* 2006, 2007, 3866  
   physiological races 3887  
*Puccinia* 3083, 6059, 6065, 10422  
*Puccinia*, technique 1139  
   quality, for cooking 10482  
   quality, for food processing 265  
   quality, for milling and baking 9576  
   quality, for nutrition 269, 1018, 1040, 1944, 3028, 3059, 5997, 7061, 7064, 8051, 8702  
   review 4052  
   quality, for storage 10503  
   radiation 1128, 10462  
 recombination 249, 3031, 4015, 4025, 4960, 4967, 4969, 4970, 5999, 10429, 10460  
 respiration 77, 285, 3036, 7863, 9561  
*Rhopalosiphum* 9594  
 root 1969, 4048, 4973, 4986, 5000, 9585, 10473, 10474, 10475  
 root, weight 4974  
 rooting capacity 10473  
 salinity 278  
*Sclerophthora* 3071, 8060, 10497  
*Sclerospora* 2006, 3888, 4036, 4067, 7021, 8704, 10496, 10499  
   physiological races, USA 4166  
 seed 5998, 6007, 6008, 8807, 10450, 10509  
   seed, anatomy 9564  
   seed, anatomy, technique 6023  
   seed, colour 265, 1932, 1936, 3053, 4028, 5993, 6001, 9543, 10441  
   seed, moisture 270, 1929, 4008, 4997, 6047, 9564, 10472  
   seed, number 5001  
   seed, size 4008, 4046, 5993, 8029, 8799, 9564  
   seed storage 9574  
   seed, texture 2833, 10436, 10482, 10494  
   seed, variegation 10449  
   seed, weight 270, 1032, 1037, 1929, 1944, 3046, 4046, 4056, 4057, 5001, 6022, 10425, 10471, 10472  
 seedlings 246, 3046, 4037, 4973, 4986, 4990, 5003, 8817  
   seedlings, colour 7034, 10466  
   seedlings, weight 4046  
 selection, artificial 1040, 1137, 1933, 1934, 1936, 1937, 1949, 1998, 2000, 3024, 4010, 4011, 4062, 4949, 5981, 7020, 7021, 7022, 7026, 7037, 7072, 8013, 8014, 8057, 10423, 10425, 10426, 10476, 10499  
*Sesamia* 1631  
*Setosphaeria* 241, 1137, 1138, 3029, 3074, 4034, 6056, 6059, 8021, 8830  
   physiological races  
   review 1922  
   USA 4066, 5007  
*Setosphaeria*, technique 4065  
 sex 1124, 1959  
 silage 269, 1119, 1126, 3028, 3059, 4029, 4030, 4031, 4951, 7030, 8016, 8017, 8055, 9521, 9586  
*Sitophilus* 5016, 7071, 10503, 10505  
*Sitophilus*, technique 10509

**Zea, maize contd.**

*Sitotroga* 5014  
*Sorghum*, chemicals as plant constituents, phenols 8704  
 sowing and planting date 1999, 2004, 4059, 4060, 5985, 6031, 6065  
*Sphacelotheca* 3076  
   physiological races, Moldavian SSR 10502  
 spikelets 6036, 7043  
*Spodoptera* 2831, 3083, 4072, 6067, 10422  
*Spodoptera*, technique 8709  
 stability 1971, 4011, 4036, 7032, 7042, 8018, 8805  
   stability, technique 1917  
   stem 1926, 7043, 10435  
   stem, anatomy 6025  
   stem, size 5018  
   stem, weight 8829  
   sterility and fertility 1961, 4035, 5002  
   sterility, male 1131, 1959, 1960, 7051, 9534, 9565, 9567  
   review 10227  
   sterility, male, cytoplasmic 250, 264, 281, 283, 284, 285, 1932, 1975, 1976, 2008, 3048, 3077, 4038, 4069, 4992, 5996, 6028, 6029, 6041, 6042, 6063, 6846, 6868, 7052, 7053, 7069, 8026, 8027, 8043, 8061, 8062, 9532, 9538, 9557, 9566, 9567, 9573, 9591, 10238, 10468, 10493, 10495  
   sterility, male, cytoplasmic, technique 257, 1978  
   sterility, male, technique 6038  
   stomata 6054  
   taxonomy 1134, 1135, 8053, 9580  
   temperature, effect of 254, 259, 1113, 1972, 1983, 3046, 4031, 4045, 4068, 4993, 5005, 6033, 6053, 7046  
   tillering 1918, 9565  
   tissue culture 1127, 1976, 2008, 3077, 4038, 4042, 4043, 6039, 6040, 7053, 8043, 9559, 10464  
   toxic soils 8044  
   translocation, physiological 260, 1968, 1970, 3041, 7047, 8811, 8815  
*Trichoderma* 9589  
*Ustilago* 2009, 2010, 9520, 9529  
   physiological races 4070  
   Moldavian SSR 6064  
 variation 1997  
 varieties  
   Austria 3854  
   Italy 1941, 8798  
   Mexico 1942  
   Rhodesia 2813  
   Romania 1940  
   S. Korea 241, 242, 1121, 3029  
   Switzerland 237, 238, 239, 7031, 8017  
 varieties, classification 1941, 1997, 8812  
 variety trials  
   Austria 4811  
   Brazil 8015, 9525, 10442  
   Cameroon 1120  
   Cuba 10443  
   Czechoslovakia 9526, 9586  
   Ethiopia 1701  
   Europe 9530  
   Finland 1119  
   India 9527  
   Italy 4950, 4951, 7030, 8798  
   Puerto Rico 73, 236  
   Romania 5986, 5987, 9528  
   Rwanda 8797  
   Switzerland 1939  
   UK 2812  
   USA 50, 5803, 5989, 8016, 8795, 8796  
   USSR 9529  
   variety trials, technique 3027, 5988, 7859  
   vascular tissue 6868  
   viruses 286, 287, 1118, 1631, 2014, 3026, 3029, 3034, 4073, 4074, 4946, 5017, 5018, 7074, 7075, 8831, 10510, 10511, 10512  
   viruses, technique 1923  
   vivipary 4981, 7056  
   water balance 67  
   white ear 4997

**Zea, maize contd.**

yield components 256, 258, 261, 277, 1121, 1631, 1928, 1930, 1944, 1958, 1963, 1965, 1997, 1998, 2000, 3037, 3053, 3054, 3063, 4018, 4020, 4035, 4049, 4050, 4991, 5978, 5980, 5986, 5995, 6002, 6005, 6021, 6030, 6031, 6032, 6047, 7042, 7050, 8014, 8038, 8046, 8049, 8792, 8806, 8816, 8825, 8826, 9575, 10470  
 yield components, technique 1979  
*Zea, maize* × *Euchlaena*, hybridization, intergeneric 240, 243, 244, 245, 1129, 4072, 7041, 7049, 8022, 8048, 9544, 9545, 9580, 9598  
*Zea, maize* - *Petroselinum*, chromosome transfer 4813  
*Zea, maize* - *Sorghum*, protoplast fusion 7039  
*Zea, maize* × *Tripsacum*, hybridization, intergeneric 247, 248, 1951, 4019, 4023, 7049, 7078, 9544, 9580, 10444, 10445, 10446  
**Zea, popcorn**  
   chemicals, as plant constituents  
   nucleic acids 9581  
   trypsin inhibitor 3057  
   combining ability 5021  
   genetic variance 5021  
   growth period 1141  
   height 1141  
   heterosis 5021  
   *Ostrinia* 3082  
   quality, for popping 1141, 5021  
   yield components 1141, 5021  
**Zea, sweet corn**  
   breeding  
   Canada 288  
   USA 3085, 5019, 7076  
   chemicals, as plant constituents  
   lysine 6051  
   maltose 7077  
   polysaccharides 3084, 9596  
   protein 6051  
   sorbitol 7077  
   starch 3084  
   sugar 3084, 9596  
   tryptophan 6051  
   cold, effect of 2002  
   combining ability 4076  
   diallel analysis 4076  
   endosperm 3084, 9596  
   genetics  
   endosperm 3084, 9596  
   *Setosphaeria* 5020  
   sugar 3084  
   germination 2002  
   growth period 8066  
   height 4075  
   *Heliothis* 3085, 5019  
   inflorescence, length 9595, 9596  
   inflorescence, size 8066  
   *Longidorus* 4075  
   modifiers 3084  
   mycoplasmas 2013  
   *Ostrinia* 4076, 7076  
   *Pratylenchus* 4075  
   pruning 1140  
   quality 3085  
   seed, size 8066  
   *Setosphaeria*, physiological races 5020  
   sowing and planting date 8066  
   tillering 1140  
   varieties, Canada 289, 290  
   varieties, classification 8066  
   viruses 7074  
**Zingiber**  
   chromosomes, morphology 33  
   density of stand 10844  
   flowering 2454  
   growth period 10844  
   heritability 659  
   pollen 2454  
   pollination 6469  
   sterility and fertility 2454  
   sterility, self 6469  
   yield components 659  
**Zizania**  
   chemicals, as plant constituents, anthocyanins 10623  
   genetics, anthocyanins 10623  
   growth period 4233  
   height 4233



***Zizania* contd.**

inhibitors, anthocyanins 10623  
seed, size 4233

***Zizyphus***

chromosomes, number 10000  
development and growth 6540  
fruit, number 10002  
 $\gamma$  rays 6540  
growth period 9149  
habit 9149  
heat and drought resistance 10002  
*Pleospora* 10003  
pollen 10000  
quality, for fresh consumption 9149  
varieties, S. Korea 8434  
variety trials

India 9149, 10926

S. Korea 8434

***Zygogramma*, *Helianthus*, sunflower 10825**









































# CAB PUBLICATIONS AND SERVICES

## Main Journals

The abstract journals form one part of a range of services in agricultural science provided by CAB, and will contain in 1982 a total of 180,000 abstracts and titles. With records derived from over 8,500 serials and many other publications, the journals constitute the only comprehensive coverage in English of the world literature on agriculture and related sciences. Readers' comments on the journals, their subject and literature coverage, are welcomed.

## Specialist Journals

In response to demand, CAB has launched a new series of journals for the specialist research worker; some cover multidisciplinary topics, others deal with a single crop or product. Records for these journals are selected from the CAB database, and may be supplemented by relevant items from collaborating organizations.

## Magnetic Tapes

Since 1973 (1972 in Animal Health) the journals have been produced by computer techniques. The consolidated database, now containing over 1,300,000 records and increasing by 12,000 each month, is available on magnetic tape. Complete sets of tapes or parts corresponding to selected subjects may be leased. Prices and sample tapes on request.

## Online Services

The CAB database, known as CAB ABSTRACTS, is accessible through Lockheed's computer based DIALOG Information Service, the ESA/QUEST system and DIMDI. Online access to CAB ABSTRACTS provides a rapid and highly efficient method of obtaining references to papers published since 1972-73.

## CAB Search Services

CAB scientists who compile the CAB database will also carry out searches for customers. The basic charge is £25 plus £0.10 per abstract retrieved. A regular monthly SDI service can be supplied for £100 per year for up to 50 references per month.

## Annotated Bibliographies

4,000 Annotated Bibliographies already available provide information on specific topics.

## Other Publications

A wide range of books, review articles, technical communications and reports are published. Write for our catalogue.

## Document Delivery Service

Most original articles abstracted in CAB journals are available as photocopies. Order forms are printed in each journal or are available in bulk from CAB. Online document ordering is also available through Lockheed's DIAL-ORDER and ESA's PRIMORDIAL services.

## Ordering Information

Subscriptions should be fully paid by 1st December for the volumes to be issued in the following year.

Many journals are available at special rates to subscribers in CAB member countries which are listed below. Please write for details.

A subscription provides entitlement to monthly (or quarterly) parts plus annual indexes. Rates include packing and mailing by air post to distant countries wherever the cost can be absorbed. Orders should be sent to:

CENTRAL SALES  
COMMONWEALTH AGRICULTURAL BUREAUX  
FARNHAM HOUSE, FARNHAM ROYAL, SLOUGH SL2 3BN, UK.  
Tel: Farnham Common (02814) 2281 Telex: 847964 Cables: Comag, Slough

## Member Countries of CAB

Australia  
Bangladesh  
Botswana  
Canada  
Cyprus  
Dependent Territories  
Fiji  
Ghana

Guyana  
India  
Jamaica  
Kenya  
Malawi  
Malaysia  
Mauritius

New Zealand  
Nigeria  
Papua New Guinea  
Sierra Leone  
Solomon Islands  
Sri Lanka  
Tanzania

The Bahamas  
The Gambia  
Trinidad & Tobago  
Uganda  
United Kingdom  
Zambia  
Zimbabwe



# CAB ABSTRACT JOURNALS AND SERIAL PUBLICATIONS

## 1982

	Frequency	Annual rates (paper or microform) £	New subscriber rates £
<b>Main abstract journals</b>			
Agricultural Engineering Abstracts	M	81	81
Animal Breeding Abstracts	M	146	95
Arid Lands Development Abstracts	M	146	146
Dairy Science Abstracts	M	151	98
Field Crop Abstracts	M	189	123
Forestry Abstracts	M	146	95
Forest Products Abstracts	M	70	46
Helminthological Abstracts. A — Animal Helminthology	M	124	81
B — Plant Nematology	Q	43	28
Herbage Abstracts	M	108	70
Horticultural Abstracts	M	205	133
Index Veterinarius	M	211	137
§ Leisure Recreation & Tourism Abstracts	Q	43	43
Nutrition Abstracts & Reviews. A — Human & Experimental	M	184	120
B — Livestock Feeds & Feeding	M	124	81
Plant Breeding Abstracts	M	227	148
Protozoological Abstracts	M	86	86
Review of Applied Entomology. A — Agricultural	M	130	85
B — Medical & Veterinary	M	65	42
Review of Medical & Veterinary Mycology	Q	54	35
Review of Plant Pathology	M	130	85
Rural Development Abstracts	Q	43	43
Rural Extension, Education and Training Abstracts	Q	40	40
Soils & Fertilizers	M	184	120
Veterinary Bulletin	M	167	109
Weed Abstracts	M	92	60
World Agricultural Economics and Rural Sociology Abstracts	M	146	95
<b>Primary journal</b>			
Bulletin of Entomological Research	Q	65	42
<b>Specialist abstract journals</b>			
Cotton & Tropical Fibres Abstracts	M	35	23
Crop Physiology Abstracts	M	102	66
Faba Bean Abstracts (new in 1981)	Q	28	18
Irrigation & Drainage Abstracts	Q	42	27
Maize Quality Protein Abstracts	Q	12	8
Ornamental Horticulture	M	42	27
Plant Growth Regulator Abstracts	M	54	35
Potato Abstracts	M	43	28
Poultry Abstracts	M	72	47
Rice Abstracts	M	54	35
Seed Abstracts	M	60	39
Small Animal Abstracts	Q	30	20
Sorghum and Millets Abstracts	M	24	16
Soyabean Abstracts	M	42	27
Triticale Abstracts	Q	18	12
Tropical Oil Seeds Abstracts	M	30	20
<b>Serial publications</b>			
Animal Disease Occurrence	H	43	—
Bibliography of Systematic Mycology	H	8	—
Biocontrol News & Information	Q	36	23
Descriptions of Pathogenic Fungi and Bacteria	Q	11	—
Descriptions of Plant Viruses	A	5	—
Distribution Maps of Pests	H	19	—
Distribution Maps of Plant Diseases	H	11	—
Index of Fungi	H	13	—
Lentil Abstracts	A	6	—
Forestry Card Title Service:			
Full Service (FA & FPA)	M	103	67
Forestry Abstracts only (FA)	M	78	51
Forest Products Abstracts only (FPA)	M	43	28
Comprehensive Pig Information Service (write for details)	—	75	75
Index of Current Research on Pigs only	A	10	10
Pig News and Information only	Q	25	25
Food Science and Technology Abstracts Complete	M	330	—
Single parts	—	33	—
Annual Cumulated Index	A	72	—
A — Annual                      H — Half year                      M — Monthly                      Q — Quarterly			
§ Formerly Rural Recreation & Tourism Abstracts			

CENTRAL SALES  
COMMONWEALTH AGRICULTURAL BUREAU  
FARNHAM HOUSE, FARNHAM ROYAL, SLOUGH SL2 3BN, UK.  
Tel. Farnham Common (028 14) 2662. Telex: 847964. Cables: Comag, Slough